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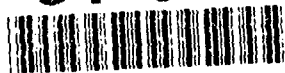
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NOTE

This is a companion issue to Volume 44, Part 1. The latter contains the full bibliographic citations referred to in the author and subject indexes included in this issue. In the author index, principal and joint personal and corporate authors are listed along with the title, date, pagination, and language of the document and the accession number. The subject index is composed of four basic elements:

- 1) terms taken from a controlled vocabulary, based on the Thesaurus of Engineering and Scientific Terms (LEX-EJC)
- 2) free terms added as needed
- 3) geographic names, generally entered under countries
- 4) cross references suggesting additional appropriate terms.

The terms are listed in a single alphabetical arrangement, along with title (original, translated, abridged, expanded, or supplied), principal author, date, pagination, and language of pertinent documents, and their accession numbers.

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Field stations in arctic and subarctic Canada (1989, p. 303-305, eng) **44-4032**
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Electric vehicle design considerations for cold weather operations (1989, 4p., eng) **44-2852**
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Full scale pavement test international joint research (1989, p. 370-375, eng) **44-1672**
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Freeze-thaw deterioration of concrete pavements (1989, p. 97-104, eng) **44-685**
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Artificial and natural icing tests of AH-64. Phase 2. Final report Nov.-Dec. 1986 (1987, 220p., eng) **44-1407**
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Sticky snow: stopping the damage (1990, p. 96-99, fre) **44-2412**
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GEOSAT altimeter geophysical data record user handbook (1987, 35p., eng) **44-1230**
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- American Society of Heating, Refrigerating and Air-Conditioning Engineers, Winter Meeting, Chicago, IL, Jan. 28-Feb. 1, 1989**
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Test of Newton's inverse-square law in the Greenland ice cap (1989, p.985-988, eng) 44-3083
- Andersen, J.K.**
Rapid thermal ice penetration system (1989, p.224-242, eng) 44-3149
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Primary production, chlorophyll, light, and nutrients beneath the arctic sea ice (1989, p.147-191, eng) 44-985
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The snow-radar: a new device for areal snow depth measurements (1987, p.269-284, eng) 44-3316
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General report on mechanical properties of frozen soil (1989, p.433-441, eng) 44-919
- Anderson, A.M.**
CO modeling in Alaska (1989, p.191-207, eng) 44-1762
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In-situ measurements in hot-mix asphalt pavements (1989, p.278-285, eng) 44-1663
More effective cold, wet-weather patching materials for asphalt pavements. Final report, Aug. 84-Sep. 87 (1988, 152p., eng) 44-1106
- Anderson, J.B.**
Glacial-marine sedimentation (1989, 127p., eng) 44-2939
Late Quaternary glacial history of the South Orkney Plateau, Antarctica (1990, p.265-275, eng) 44-4336
Sediments (1990, p.187-206, eng) 44-4055
- Anderson, J.S.**
Changes in soil and stream hydrochemistry during periods of spring snowmelt at a pristine site in mid-Norway (1989, p.321-337, eng) 44-267
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Sources, fates and effects of aromatic hydrocarbons in the Alaskan marine environment with recommendations for monitoring strategies (1986, 123p., eng) 44-2108
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Evaluation of low temperature and permanent deformation characteristics of some engineered asphalts (1988, p.292-310, eng) 44-2843
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Chemical oceanography of the Arctic Ocean (1989, p.93-114, eng) 44-984
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Direct comparison of nondestructive, laboratory, and *in situ* testing (1989, p.310-319, eng) 44-1667
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Modelling seasonally freezing ground conditions. Interim report No.1 (1987, 27p., eng) 44-894
Modelling seasonally freezing ground conditions. Interim report No.2 (1987, 18p., eng) 44-895
- Anderson, M.R.**
Spring melt patterns in the Kara/Barents Sea: 1984 (1989, p.25-33, eng) 44-294
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Effects of withholding mixing water and retempering on properties of concrete. Interim report (1988, 129p., eng) 44-1057
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Significance of ice-covers for planktonic algae (1989, p.174-177, eng) 44-323
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Topographically induced convective snowbands over the Baltic Sea and their precipitation distribution (1990, p.299-312, eng) 44-3906
- Ando, K.**
Snowfall forecasting method and its accuracy (Vol.2) (1989, p.95-100, jpn) 44-2862
- Andreas, E.L.**
Comments on "A physical bound on the Bowen ratio" (1989, p.1252-1254, eng) 44-1524
Environment of wintertime leads and polynyas (1989, p.273-288, eng) 44-3154
Lidar-derived particle concentrations in plumes from arctic leads (1990, p.9-12, eng) 44-4151
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Refractive index structure parameter for a year over the frozen Beaufort Sea (1989, p.667-679, eng) 44-2091
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Time constants for the evolution of sea spray droplets (1989, p.147-149, eng) 44-1221
Year of Bowen ratios over the frozen Beaufort Sea (1989, p.12, 721-12, 724, eng) 44-231
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Glacigenic sediments on a passive continental margin as exemplified by the Barents Sea (1989, p.251-272, eng) 44-3938
- Andreev, I.U.B.**
Effect of errors in estimating avalanche parameters when calculating the strength of protective structures (1989, p.45-49, rus) 44-1570
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Hydrometeorological support of winter navigation in the Antarctic (1989, p.85-87, eng) 44-1033
Hydrometeorological support to antarctic winter navigation (1988, p.124-127, rus) 44-101
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Variation in temperature and the level of man-made cryopegs in an annual cycle (1989, p.106-112, rus) 44-156
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Moisture distribution and frost heave deformation according to the depth of the freezing layer in clay soils at hydrotechnical structures of irrigation systems in the Kuybyshev region (1985, p.120-125, rus) 44-209
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Climatic evolution of the eastern Canadian Arctic and Baffin Bay during the past three million years (1988, p.235-250, eng) 44-14
Fiord to deep sea sediment transfers along the north-eastern Canadian continental margin: models and data (1990, p.55-70, eng) 44-3532
Sediment flux in a fiord/shelf transect: annual report Oct. 86-Sep. 88 (1988, 59p., eng) 44-669
Sediment flux in a fiord/shelf transect of an ice-dominated continental margin (1987, 8p., eng) 44-1611
- Andrievskii, V.S.**
New decisions in design projects for underground disposal of industrial liquid wastes from gas-production facilities (1989, p.143-151, rus) 44-4527
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Ecological anti-erosional and soil-conserving measures on the routes of main pipelines in the European North (1989, p.65-72, rus) 44-4513
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Observations on avalanche at Rogers Pass, British Columbia, Canada, in 1989 (1989, p.37-48, jpn) 44-2633
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Rational explanation of cross-profile morphology for glacial valleys and of glacial valley development (1988, p.707-716, eng) 44-55
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Fundamental study on slush avalanche on the slope of Mt. Fuji (1989, p.17-23, jpn) 44-2632
Prediction of snow strength for mechanical analysis of surface avalanche (1985, p.234-239, jpn) 44-2321
Slope erosion in cold regions (1985, p.298-302, jpn) 44-2328
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CRREL's snowdrift wind tunnel (1987, p.405-410, jpn) 44-2553
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Report on meteorological research observations by the 29th Japanese Antarctic Research Expedition in 1988 (1990, p.46-75, jpn) 44-3741
- Aoki, T.**
Report on meteorological research observations by the 29th Japanese Antarctic Research Expedition in 1988 (1990, p.46-75, jpn) 44-3741
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Detection method of snow flow removed by rotary snow remover (1989, p.167-170, jpn) 44-2874
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On the salinity and the crystallographical structure of sea ice near river mouth (1988, p.197-211, jpn) 44-740
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- Aoyama, H.**
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Characteristics of thermal breaking of a heterogeneous ice cover [1988, p.99-107, rus] **44-103**
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Estimating the effects of rain and snow on potential reactor accident consequences [1986, p.235-242, eng] **44-2348**
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- Arctic and Marine Oilspill Program Technical Seminar, 11th, Vancouver, B.C., June 7-9, 1988**
Proceedings [1988, 514p., eng] **44-1954**
- Arctic oil spill response guide for the Alaskan Beaufort Sea. Final report**
Arctic oil spill response guide for the Alaskan Beaufort Sea. Final report [1988, 334p., eng] **44-844**
- Arctic Petroleum Association**
Arctic Petroleum Review, Summer 1989, Vol.12, No.1 (issue 30) [1989, 8p., eng] **44-3918**
- Arctic Technology Workshop, Hanover, NH, June 20-23, 1989**
Proceedings [1989, 475p., eng] **44-3132**
- Ardani, A.**
Frost heave control with buried insulation. Final report [1989, 43p., eng] **44-1830**
Frost heave control with buried insulation. Interim report [1987, 49p., eng] **44-891**
- Are, F.E.**
Cryopegs along the lower Yuribey River in Yamal [1990, p.60-67, rus] **44-4302**
Deformation of river banks in Yamal [1990, p.67-73, rus] **44-4303**
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Effect of low temperatures and hydrogen on slow destruction of welded joints [1990, p.153-157, rus] **44-4371**
- Arikainen, A.**
Ice conditions in the Soviet Arctic: trends of multi-year variations [1988, p.215-220, eng] **44-1141**
- Arikainen, A.I.**
Navigation in the ice of the Arctic [1990, 247p., rus] **44-3359**
Toward peace and security in the Arctic: cooperation between the Soviet Union and the United States [1989, p.58-70, eng] **44-3292**
- Arisawa, Y.**
Numerical simulation of snowdrift development [1989, p.115-120, jpn] **44-2865**
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Nuclear magnetic resonance study of the effect of organic ice-forming compounds on the freezing temperature of a water-oil emulsion [1989, p.1172-1174, rus] **44-2574**
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Limiting state of metals at cryogenic temperatures under impulse magnetic exposure [1990, p.233-237, rus] **44-4389**
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Variations of Italian glaciers, 1985-1986 [1987, p.229-276, ita] **44-2097**
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Possible use of deuterium and oxygen-18 to identify sea masses and to trace the origin and drifting of sea ice (preliminary study) [1990, p.137-147, eng] **44-4080**
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Theoretical assessment for microwave propagation in snow-fall [1985, p.383-388, jpn] **44-2332**
- Asayama, M.**
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- ASHRAE/DOE/BTECC/CIBSE Conference on the Thermal Performance of the Exterior Envelopes of Buildings, 4th, Orlando, FL, Dec. 4-7, 1989**
Proceedings [1989, 820p., eng] **44-1356**
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- Australia. Antarctic Division**
1988-89 Australian Antarctic Research Program. Initial summary of research activity [1989, 126p., eng] **44-2378**
1989-90 Australian Antarctic Research Program. Antarctic Treaty exchange information: Supplement A to particulars for Australian National Antarctic Research Expeditions [1989, 262p., eng] **44-2379**
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Austrian glacier and plenty of snow for Leitner's summer demonstration [1989, p.57-61, ita] **44-910**
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- AWRA Symposium on Monitoring, Modeling, and Mediating Water Quality**, Syracuse, New York, May 17-20, 1987
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- Ayukawa, M.**
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- Babello, V.A.**
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- Babiaková, G.**
Contribution to the modelling of both quality and quantity of seasonal snowcover [1988, p.117-129, eng] 44-241
- Babin, L.A.**
Development of preventive methods against soil erosion in pipeline areas [1989, p.129-133, rus] 44-4524
- Babitshev, V.A.**
Ice loads on ship bottoms [1982, p.9-11, rus] 44-3207
- Baca, B.J.**
Environmental impacts of oil and hazardous material spills with emphasis on winter conditions in the upper Great Lakes region. Final report [1986, 63p., eng] 44-1887
- Backman, A.**
Experiences with the new Swedish icebreaker *Oden* [1989, p.1508-1514, eng] 44-4446
- Results from the full scale testing of the new icebreaker *Oden* [1990, p.F1-F9, eng] 44-3469
- Backman, J.**
Late Pliocene variation in Northern Hemisphere ice sheets and North Atlantic deep water circulation [1989, p.413-446, eng] 44-1734
Pleistocene evolution: Northern Hemisphere ice sheets and North Atlantic Ocean [1989, p.353-412, eng] 44-1733
- Bader, H.P.**
Model of initial failure in slab-avalanche release [1989, p.90-95, eng] 44-554
On the mechanics of snow slab release [1990, p.287-300, eng] 44-3300
- Badley, M.**
Propagator matrix for acoustic wave propagation through anisotropic porous media [1986, p.463-472, eng] 44-1745
- Badu-Tweneboah, K.**
Prediction of flexible pavement layer moduli from Dynaflect and FWD deflections [1989, p.245-277, eng] 44-978
- Baggeroer, A.B.**
Analysis of high-frequency multitone transmissions propagated in the marginal ice zone [1990, p.185-190, eng] 44-4280
Arctic ocean acoustics in CEAREX [1989, p.2-3, eng] 44-3133
Estimation of ice surface scattering and acoustic attenuation in arctic sediments from long-range propagation data [1984, 14p., eng] 44-724
- Baginska, M.**
Determination of the resistance of the underside of ice cover [1989, p.152-167, eng] 44-2032
Longitudinal water temperature distribution and the increase of ice cover thickness in the impounding reservoir [1989, p.1-14, eng] 44-2018
Proceedings [1989, 245p., eng] 44-2017
Unsteady flow in open channels with ice cover [1989, p.143-151, eng] 44-2031
- Baglai, R.D.**
Characteristics of the interaction of pipelines with frozen ground [1989, p.37-39, rus] 44-95
- Bai, C.Y.**
Geomorphologic and climatic conditions of existence of alpine glaciers and elevation of snow line in West China [1989, p.11-28, chi] 44-3882
Radiation and heat balances on alpine glaciers in China [1989, p.29-54, chi] 44-3883
- Bai, Z.Y.**
Calculation results of radiational climate in glacierized cirque and glacier-free cirque at the headwater of Urumqi River in Tianshan Mountains [1989, p.336-349, chi] 44-3611
Development of local climate in the glaciated area in the head of Urumqi River [1989, p.325-334, eng] 44-3610
Heat balance study on Glacier No. 1 at head of Urumqi River, Tianshan Mountains, China [1989, p.298-309, eng] 44-3608
Study of relationship between climate and mountain glaciers [1989, p.287-297, chi] 44-3607
Variations of albedo on the Glacier No. 1 at the headwater of Urumqi River, Tianshan Mountains, during the summer ablation period [1989, p.311-324, chi] 44-3609
- Baidarovtsev, I.U.P.**
Calibration of thermocouples at low temperatures [1989, p.58-59, eng] 44-903
- Baikova, I.M.**
Change in the albedo of land in the zone of seasonal snow cover variations under possible climate warming [1989, p.65-74, rus] 44-4223
- Bailey, D.B.**
Future airborne systems in northern latitudes [1989, p.26-52, eng] 44-3136
- Bailey, D.M.**
ROOFER: a management tool for maintaining built-up roofs [1989, 9p., eng] 44-2109
- Baishev, S.I.**
Moisture regime of cultivated frozen flood-plain meadow soils seeded with sunflower in central Yakutia [1988, p.30-37, rus] 44-1961
- Barjovsky, I.**
Discharge and sediment-load characteristics of the Hilda rock-glacier stream, Canadian Rocky Mountains, Alberta [1989, p.295-306, eng] 44-2635
- Barzak, D.**
Discrimination between snow and clouds using remote sensing digital data from satellites [1988, p.94-99, chi] 44-640
- Baker, D.**
Icebreaker midbody resistance: phase 2: beam variation [1990, 176p., eng] 44-3769
Optimization of hull form for future arctic tankers—phase I. Summary report [1989, 12p., eng] 44-4266
- Baker, D.G.**
Albedo decay of prairie snows [1990, p.179-187, eng] 44-3420
- Baker, D.J.**
Satellite-borne remote sensing and large-scale programs for the arctic seas in the 1990s [1989, p.510-530, eng] 44-3433
- Baker, D.N.**
Effect of ice friction on the resistance of two 1:30 scale models [1990, p.B/1-B/7, eng] 44-3466
Ice strength index—phase III [1990, 56p. + append., eng] 44-4140
- Baker, G.C.**
Brine movement during freezing of saline sand columns [1990, p.69-73, eng] 44-3645
Characteristics of the active layer and shallow subsea permafrost [1989, p.16,227-16,236, eng] 44-1109
Salt fingering in subsea permafrost: some stability and energy considerations [1990, p.9575-9583, eng] 44-4334
Salt redistribution during freezing of saline sand columns at constant rates [1989, p.1825-1831, eng] 44-2123
- Baker, H.**
Norman Wells to Zama oil pipeline permafrost and terrain research and monitoring program: site establishment report [1989, 331p., eng] 44-1496
- Baker, I.**
Fractography of ice [1989, p.1193-1194, eng] 44-1511
- Baker, J.M.**
In-situ measurement of soil water content in the presence of freezing/thawing conditions [1989, p.45-62, eng] 44-1642
- Baker, K.A.**
Structure/seabed interaction of the SSDC/MAT [1988, p.441-450, eng] 44-1161
- Baker, M.B.**
Charge transfer in thunderstorms and the surface melting of ice [1989, p.770-776, eng] 44-1862
- Baker, M.B., Jr.**
Water yield from forest snowpack management: research findings in Arizona and New Mexico [1989, p.1999-2007, eng] 44-834
- Baker, T.H.W.**
Permafrost and terrain research and monitoring: Norman Wells pipeline—volume II: research and monitoring results—1983-1988 [1990, 204p., eng] 44-3807
- Bakhanov, V.P.**
Effect of vertical wind shear on the distribution of artificial crystallization in thick supercooled cloud layers [1989, p.3-11, rus] 44-4224
Generation and evolution of a water-condensate aerosol and prevention of icing of the air-intake lines of stationary gas turbines [1988, p.21-28, eng] 44-4272
- Bakhanova, R.A.**
Effect of various impurities on the ice forming efficiency of silver iodide aerosols [1989, p.11-19, rus] 44-4225
- Bakholdin, B.V.**
Effect of frost-heave forces of soils on the bearing capacity of pyramidal piles [1990, p.243-248, eng] 44-4419
- Bakhrushina, L.G.**
Explosive waves in snow [1990, p.493-499, eng] 44-4262
- Bakonyi, P.**
Ice release from a reservoir [1989, p.15-25, eng] 44-2019
- Balaguru, P.N.**
Repair of bridge deck structures in cold weather. Final report [1987, 219p., eng] 44-676
- Balakrishnan, N.**
Estimation of rain and hail rates in mixed-phase precipitation [1990, p.565-583, eng] 44-3283
- Balchin, D.**
Field frost heave measurement and prediction during periods of seasonal frost [1990, p.393-397, eng] 44-4412
Time-domain reflectometry and electrical conductance measurements during seasonal soil frost [1988, p.195-200, eng] 44-3510
- Baldasare, P.**
Aircraft and ground vehicle friction correlation test results obtained under winter runway conditions during joint FAA/NASA runway friction program [1988, 28p., eng] 44-1078
- Baldassari, D.**
Long-term performance of three bridges on permafrost. Final report [1985, 20p., eng] 44-1291
- Balderas-Ariza, L.**
Performance of trucks braking on ice. Final report 25 Feb.-15 June 1987 [1987, 201p., eng] 44-1096
- Baldwin, J.T.**
Prediction of multiyear ice impact loads utilizing Hans Island data [1988, p.311-322, eng] 44-1149
- Bales, R.C.**
Ion elution through shallow homogeneous snow [1989, p.1869-1877, eng] 44-2125
- Balgowan, R.M.**
Evaluation of the accuracy, reliability, effectiveness, expansibility, and additional potential benefits of the SCAN 16 EF moisture, frost and ice early warning system. Final report, Oct. 84-Apr. 87 [1988, 48p., eng] 44-958
- Balkarev, B.B.**
Simple system of searching for avalanche abstracting information [1989, p.84-92, rus] 44-1784
- Balko, C.L.**
Ice data management systems [1989, 144p., append., eng] 44-1488
- Ballantyne, C.K.**
Enhanced boulder weathering under late-lying snowpatches [1989, p.745-750, eng] 44-3397

- Ballivy, G.**
Sealing anchors in frozen rock of the far north using a Portland cement grout [1990, p.357-364, fre] 44-3682
- Balmer, P.**
Chemical precipitation in highly loaded stabilization ponds in cold climates: Scandinavian experiences [1987, p.71-77, eng] 44-3311
- Bamber, J.L.**
Remote-sensing studies of Kvitbjøkkulen, an ice cap on Kvitøya, north-east Svalbard [1990, p.75-81, eng] 44-3725
- Bando, A.**
Study for improving the quality of snow drain channel [1988, p.627-633, jpn] 44-2736
- Bandy, A.R.**
Sulfur dioxide in the North American Arctic [1989, p.331-346, eng] 44-2184
- Banerdt, W.B.**
Constraints on the subsurface structure of Europa [1990, p.441-452, eng] 44-3581
- Banfield, J.D.**
Ice floe identification in satellite images using mathematical morphology and clustering about principal curves. Technical report, 1 Sep. 88 - 31 Aug. 89 [1989, 35p., eng] 44-1599
- Bangaru, N.V.**
Proceedings, Vol.3: Materials technology [1989, 739p., eng] 44-1115
- Bania, A.**
Production of the sand-aggregate concrete at freezing temperature [1985, p.223-230, eng] 44-1985
- Bannister-Parks, M.**
Road over permafrost: design of access road in Alaska [1988, p.19-22, eng] 44-1491
- Bansho, Y.**
Construction and maintenance of snowbreak forest on Doou Expressway [1988, p.190-195, jpn] 44-2683
- Banthia, N.**
Effect of early freezing on permeability of cement paste [1989, p.119-132, eng] 44-686
Effects of curing temperature and early freezing on the pull-out behavior of steel fibres [1989, p.400-410, eng] 44-38
- Barabanov, N.V.**
Ice loads on ship bottoms [1982, p.9-11, rus] 44-3207
- Barabanova, G.V.**
Effect of polyester thickeners on thermal stability and low-temperature properties of phosphate fluids [1990, p.352-354, eng] 44-3203
- Baranov, A.V.**
New constructive and technological decisions for temporary roads, foundations and pipelines during development of Subarctic gas-condensate deposits and construction of main gas- and oil-pipeline systems from an ecological point of view [1989, p.160-165, rus] 44-4529
- Baranski, A.**
Meteorological data from Polish antarctic station "H. Arctowski" for 1988 [1989, p.255-258, eng] 44-2740
- Barbat, I.U.P.**
Avalanche hazard derived from satellite photographs [1989, p.220-223, rus] 44-1592
- Barber, M.J.**
Binders for snow roads and runways in Antarctica [1989, p.84-86, eng] 44-215
- Barbiaux, G.R.**
Technical feasibility test of field burner unit using diesel fuel [1989, 33p. + appendix, eng] 44-474
- Barduhn, A.J.**
Why does ice grow faster from salt water than from fresh water [1987, p.99-106, eng] 44-1786
- Barekova, M.V.**
Kinematics of upper air cyclones and the intensity of hail processes in the region of the Caucasus [1989, p.124-132, rus] 44-819
- Barfoot, J.**
Freeze-thaw repairs to Haweswater Dam [1989, p.44-45, eng] 44-1885
- Barker, H.W.**
Multiple reflections across a linear discontinuity in surface albedo [1989, p.203-214, eng] 44-759
- Barker, J.L.**
Effects of time-dependent winds and ocean eddies on ice motion in a marginal ice zone [1987, 53p., eng] 44-1080
- Barker, P.F.**
Seismic stratigraphy of the Antarctic Peninsula Pacific margin: a record of Pliocene-Pleistocene ice volume and paleoclimate [1989, p.731-734, eng] 44-306
- Barkov, N.I.**
Crystalline texture of the 2083 m ice core at Vostok Station, Antarctica [1989, p.392-398, eng] 44-1901
- Barkovskaya, E.N.**
Role of gas hydrates in cryolithogenesis of marine deposits in the arctic basin [1988, p.1-12, eng] 44-2009
- Barnes, J.R.**
Transport of dust to high northern latitudes in a Martian polar warming [1990, p.1381-1400, eng] 44-2289
- Barnes, P.W.**
Data on the characteristics of dated gouges on the inner shelf of the Beaufort Sea, Alaska: 1977 to 1985 [1989, 72p., eng] 44-3956
Effects of elevated temperatures and rising sea level on Arctic coast [1990, p.21-28, eng] 44-3387
Review of beach nourishment from ice transport of shoreline materials, Beaufort Sea, Alaska [1990, p.439-469, eng] 44-3395
Salt-water anchor ice formation: observations from the Alaskan Beaufort Sea and flume experiments [1990, p.114-116, eng] 44-3832
Sediment transport by ice gouging: application of model experiments to the arctic continental shelf [1990, p.109-111, eng] 44-3830
Source, characteristics, and significance of sediment pellets formed on the sea ice of the arctic basin [1990, p.106-108, eng] 44-3829
- Barnett, P.J.**
History of the northwestern arm of the Champlain Sea [1988, p.25-36, eng] 44-4452
- Barnola, J.M.**
Ice-core record of atmospheric methane over the past 160,000 years [1990, p.127-131, eng] 44-3579
- Baron, J.**
Hydrologic and chemical flux in Loch Vale watershed, Rocky Mountain National Park [1987, p.141-155, eng] 44-79
- Baroni, C.**
Geomorphological and glaciological investigations in Victoria Land (Second expedition of the Italian Antarctic Research Program, 1986-1987) [1987, p.321-336, ita] 44-2098
Geomorphological map of the Northern Foothills near the Italian station (Terra Nova Bay, Antarctica) [1987, p.195-211, eng] 44-3246
Strandline Glacier, Terra Nova Bay, Antarctica [1987, p.337-350, ita] 44-2099
- Barrie, L.A.**
Anthropogenic aerosols and gases in the lower troposphere at Alert, Canada in April 1986 [1989, p.101-127, eng] 44-2170
Flux of anthropogenic sulphur into the Arctic from mid-latitudes in 1979/80 [1989, p.2505-2512, eng] 44-2264
Stable lead isotope ratios in arctic aerosols: evidence for the origin of arctic air pollution [1989, p.2513-2519, eng] 44-2265
- Barron, E.J.**
Climate sensitivity to continental ice sheet size and configuration [1989, p.1517-1537, eng] 44-1947
- Barron, T.S.**
Freeze crystallization as a hazardous waste treatment technology [1988, 13p., eng] 44-205
Use of freeze crystallization systems for concentration of liquid hazardous wastes [1986, p.478-486, eng] 44-945
- Barry, P.J.**
Chemistry of snow pack accumulation and melt in a deciduous forest [1989, p.219-222, eng] 44-4016
- Barry, R.**
Application of snow cover energy and mass balance model in a balsam fir forest [1990, p.1079-1092, eng] 44-4130
DMSP-SSM/1 (Defense Meteorological Satellite Program-Special Sensor Microwave Imager) NASA algorithm validation using primarily LANDSAT and secondarily DMSP and/or AVHRR visible and thermal infrared satellite imagery. Annual progress report [1988, 108p., eng] 44-709
Snowmelt runoff modeling in a balsam fir forest with a variable source area simulator (VSAS2) [1990, p.1067-1077, eng] 44-4271
- Barry, R.G.**
Arctic Sea ice and its variability [1990, p.91-101, eng] 44-4073
Arctic sea ice characteristics and associated atmosphere-ice interactions in summer inferred from SMMR data and drifting buoys: 1979-1984 [1989, p.35-44, eng] 44-295
Cloud classification from satellite data using a fuzzy sets algorithm: a polar example [1989, p.1823-1842, eng] 44-2392
Could arctic ice be thinning [1990, p.762, eng] 44-4034
Evidence of recent changes in global snow and ice cover [1990, p.121-127, eng] 44-3393
Ice core update 1980-1989. Permafrost data workshop [1989, 127p., eng] 44-2047
Lidar-derived particle concentrations in plumes from arctic leads [1990, p.9-12, eng] 44-4151
Lidar detection of leads in arctic sea ice [1990, p.119-123, eng] 44-3833
Merging AVHRR and SMMR data for remote sensing of ice and cloud in polar regions [1989, p.1691-1696, eng] 44-1814
Present climate of the Arctic Ocean and possible past and future states [1989, p.1-46, eng] 44-982
Remote sensing in Antarctica and the southern ocean: applications and developments [1990, p.105-121, eng] 44-3790
Reversals of the Beaufort Gyre sea ice circulation and effects on ice concentration in the Canada Basin [1990, p.185-188, eng] 44-3848
Seasonal variations of sea ice motion in the Transpolar Drift Stream [1989, p.811-814, eng] 44-363
- Variability of sea ice concentration in the Canada Basin and associated atmospheric forcings: 1979-1984** [1990, p.181-184, eng] 44-3847
- Barsch, D.**
Origin and geoelectrical resistivity of rock glaciers in semi-arid subtropical mountains (Andes of Mendoza, Argentina) [1989, p.151-163, eng] 44-304
- Barteneva, O.D.**
Atmospheric aerosol, trace gases and atmospheric transparency in the Arctic [1990, p.203-212, eng] 44-4090
- Barth, U.**
Laboratory study of the efficiency with which aerosol particles are scavenged by snow flakes [1990, p.1247-1254, eng] 44-4478
- Barthel, K.**
NOAA AVHRR observations during the Marginal Ice Zone Experiment, between Spitsbergen and Greenland, June 7 to July 18, 1984. Final report [1988, 130p., eng] 44-840
- Bartlett, C.S.**
Empirical look at tolerances in setting icing test conditions with particular application to icing similitude. Final report Apr. 86-Jan. 87 [1988, 57p., eng] 44-961
Stability relationship for water droplet crystallization with the NASA Lewis icing spray [1987, 20p., eng] 44-1294
- Bartlett, D.W.**
Laminar flow integration: flight tests status and plans [1986, p.485-518, eng] 44-1406
- Basham, K.D.**
Effects of cold embedments on the temperature of fresh concrete [1985, p.308-318, eng] 44-1993
- Baskakova, I.N.**
Using magnetic and gravimetric methods in studying underground ice [1990, p.85-90, rus] 44-4543
- Baslar, K.**
X-ray analysis and ice nucleating behavior of the AgI-CuI-KI system [1989, p.4160-4163, eng] 44-1379
- Baske, E.M.**
Test methods for crack-resistance of structural steels under dynamic load [1990, p.28-32, rus] 44-4344
- Bass, D.W.**
Dynamic simulations of iceberg-seabed interactions [1989, p.137-151, eng] 44-3097
- Bates, R.E.**
Cold regions weather data systems [1989, p.139-145, eng] 44-1652
Snow-surface temperature analysis [1989, p.109-116, eng] 44-4003
- Batterson, J.G.**
Estimation of longitudinal stability and control derivatives for an icing research aircraft from flight data [1989, 24p., eng] 44-854
- Bauer, C.F.**
Development of an analytical method for the determination of explosive residues in soil. Part 3. Collaborative test results and final performance evaluation [1989, 89p., eng] 44-3757
Liquid chromatographic method for determination of extractable nitroaromatic and nitramine residues in soil [1989, p.890-899, eng] 44-2345
- Bauer, P.**
Surface radiation budget components measured over arctic sea ice [1989, p.295-297, eng] 44-4044
- Baukov, I.U.N.**
Acoustic control of ground ice using beam pattern emission [1988, p.8-13, rus] 44-1343
- Baumgardner, D.**
Laboratory and wind tunnel evaluations of the Rosemount Icing Detector [1989, p.971-979, eng] 44-1725
- Baumgartner, T.R.**
Recording of interannual climatic change by high-resolution natural systems: tree-rings, coral bands, glacial ice layers, and marine varves [1989, p.1-14, eng] 44-2941
- Baxter, C.E.**
Effect of volatility changes on vehicle cold-start driveability [1989, 20p., eng] 44-2858
- Bayazitoglu, V.**
Solidification of saline water with convection and radiation at the boundary [1988, p.197-203, eng] 44-1416
- Bayer, J.J., Jr.**
Performance of wall coatings for concrete and masonry buildings in Alaska [1989, 27 refs., eng] 44-1878
- Bayer, R.**
Oxygen 18 and helium 3 as tracers of ice shelf water and water-ice interaction in the Weddell Sea [1990, p.3253-3263, eng] 44-3185
- Bayly, I.M.**
Summary of Beaufort Sea icebreaker performance [1990, p.1/1-1/10, eng] 44-3472
- Bazhenov, V.G.**
Calculation of the temperature field and stress-strain state of a rotor of a cryo-turbogenerator during cooling and operation [1990, p.61-69, rus] 44-4351
- Bazhev, A.B.**
Features of the snow cover distribution on glaciers in winter and spring on the southern slope of Elbrus Mountain [1989, p.154-160, rus] 44-353
- Bazilevich, N.I.**
Future response of arctic ecosystems to global warming [1990, p.130-134, eng] 44-4111

- Bazin, E.T.**
Physical processes in peat bogs [1989, 284p., rus] 44-1034
- Beaupré, M.**
Ice-push bedrock and its syngenetic till at Pont-Rouge, Québec [1990, p.33-42, fre] 44-3531
- Beauvillain, E.**
Snow cover of the upper Colorado River basin from satellite passive microwave and visual imagery [1989, p.73-84, eng] 44-114
- Becker, A.**
Airborne electromagnetic sensing of sea ice thickness [1987, 77p., eng] 44-207
Airborne electromagnetic sensing of sea ice thickness. Final report [1988, 129p., eng] 44-2653
Two-dimensional mapping of sea-ice keels with airborne electromagnetics [1990, p.239-248, eng] 44-3780
- Becker, P.**
Coastal oceanography in the Beaufort Sea, summer 1985. Report for period ending 1985 [1987, 314p., eng] 44-699
- Becker, P.R.**
Natural oil seeps in the Alaskan marine environment. Final report [1988, 123p., eng] 44-700
- Becker, R.A.**
Antarctic support operations, 1987-1988 [1988, p.219-221, eng] 44-2142
- Beckman, S.K.**
Comments on "Use of enhanced IR/visible satellite imagery to determine heavy snow areas" [1989, p.251-255, eng] 44-265
Operational use of profiler data and satellite imagery to evaluate the NMC numerical models in predicting heavy snow [1990, p.259-277, eng] 44-3905
- Bedard, A.J., Jr.**
Detection of avalanches using atmospheric infrasound [1989, p.52-58, eng] 44-504
- Beddoe, R.E.**
Phase transformations of water in hardened cement paste—a low-temperature DSC investigation [1990, p.236-242, eng] 44-3367
- Bedingfield, L.**
Field evaluation of criteria for frost susceptibility of soils [1988, p.73-85, eng] 44-914
Model simulations of Winchendon freeze-thaw field data [1988, p.65-72, eng] 44-913
- Been, K.**
Ice scour models [1990, p.179-188, eng] 44-2081
Response of a Beaufort Sea clay to monotonic and cyclic loading [1990, p.329-336, eng] 44-2243
- Bégét, J.**
Middle Wisconsinan climate fluctuations recorded in central Alaskan loess [1990, p.3-13, eng] 44-3530
- Jegann, D.**
Design of arctic merchant ships [1987, p.307-311, fre] 44-601
Hull girder minimum section modulus of large merchant ice breakers [1984, p.C/1-C/8, eng] 44-3452
- Bégin, Y.**
Vegetated platforms of Lac à l'Eau Claire, subarctic Québec [1989, p.39-50, fre] 44-1031
- Beilinson, M.M.**
Formation and breakup of ice cover: in streams and water bodies of Kazakhstan [1989, 216p., rus] 44-3491
- Belmesch, B.J.**
Cold starting capabilities of petroleum and synthetic lubricants in heavy-duty diesel engines [1989, 11p., eng] 44-2855
- Bein, A.**
Role of seawater freezing in the formation of subsurface brines [1990, p.13-21, eng] 44-1769
- Belitskanov, M.N.**
Cloud physics [1989, 147p., rus] 44-863
Initiation of electrical discharges through conducting bodies in the electrostatic field of thunder and hail clouds [1989, p.7-13, rus] 44-864
- Bejan, A.**
Theory of heat transfer-irreversible refrigeration plants [1989, p.1631-1639, eng] 44-665
- Bélanger, J.R.**
Applications of thematic mapper thermal infrared imagery for permafrost and terrain studies, Richards Island, N.W.T. [1990, p.231-238, eng] 44-3667
- Beletskii, V.V.**
Arctic operations in the western part of the Soviet Arctic [1989, p.1515-1524, eng] 44-4447
- Believa, V.V.**
Experiment in developing a method of long-range forecasting of the extent and peak of spring floods in southern Central Siberia (in the example of Taseyeva River) [1989, p.62-69, rus] 44-2934
- Beliashev, V.A.**
Changes in the kinematic parameters of the propeller-shaft-engine system during interaction between propeller and ice [1984, p.36-43, rus] 44-3216
Estimating the probability of reducing the revolution rate and jamming of ship propellers in ice [1987, p.64-68, rus] 44-3217
Mechanics of ice crushing by propeller blades [1983, 10p., eng] 44-605
- Statistical laws governing the distribution of extreme ice loads on the engine-shaft system of ice-going ships and icebreakers [1989, p.69-75, rus] 44-3218
- Belikova, T.V.**
Monitoring of snow cover pollution in the USSR by background and impact levels [1989, p.42-55, rus] 44-2937
- Belkin, L.M.**
Spatial variability of pollutants in snow cover in the USSR [1989, p.45-55, rus] 44-2849
- Belkin, M.I.A.**
Effect of heat treatment, chemical composition and anticorrosive coatings on the threshold of cold brittleness of structural steels [1990, p.33-38, rus] 44-4345
- Belkina, S.A.**
Effect of polyester thickeners on thermal stability and low-temperature properties of phosphate fluids [1990, p.352-354, eng] 44-3203
- Bell, P.M.**
Experimental study of planetary gases with applications to planetary interior models. Final project report, June 1, 1983-November 30, 1987 [1988, 10p., eng] 44-721
- Bell, R.**
Airborne gravimetry: a new tool for antarctic geophysical studies [1988, p.42-44, eng] 44-1689
- Bellatty, T.A.**
Environmental considerations [1990, p.83-91, eng] 44-4268
- Bellissent-Panet, M.C.**
Structural study of deeply supercooled water [1989, p.7123-7129, eng] 44-766
- Bello, R.**
Structure of high-density amorphous water. II. Neutron scattering study [1987, p.2231-2235, eng] 44-2116
- Bello, R.**
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Significant metalliferous lode deposits and placer districts of Alaska [1987, 104p. + appends., eng] 44-533
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St. Lawrence River ice boom demonstration NYDEC environmental assessment discrepancies. Final report [1980, 34p., eng] 44-1851
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Biogenic particles in antarctic ice cores and the source of antarctic dust [1988, p.71-72, eng] 44-1701
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Support for an arctic camp for 10 persons for 30 days. Final report [1988, 22p., eng] 44-675
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Norman Wells pipeline permafrost and terrain monitoring: geothermal and geomorphic observations, 1984-1987 [1990, p.233-244, eng] 44-3627
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MIZEX (Marginal Ice Zone Experiment) 1987 SAR (synthetic aperture radar) data summary: informal information report [1988, 137p., eng] 44-701
SAR image statistics related to atmospheric drag over sea ice [1990, p.158-165, eng] 44-3011

- Barns, R.C.**
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Critical review and ways to improve methods to calculate the highest ice jam water levels [1989, p.28-41, rus] 44-4401
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- Camp, D.W.**
Meteorological and Environmental Inputs to Aviation Systems Workshop, University of Tennessee, Space Institute, Tullahoma, TN, Mar. 12-14, 1985. Proceedings [1985, 226p., eng] 44-707
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Transformations and disposition of late-fall applied nitrogen during winter in southern Saskatchewan [1989, p.551-565, eng] 44-667
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- Canadian Coast Guard icebreakers keeping Canada moving through winter ice**
Canadian Coast Guard icebreakers keeping Canada moving through winter ice [1989, p.16-18, eng] 44-4467
- Canadian Permafrost Conference, 5th**
Proceedings [1990, 424p., eng] 44-3635
- Canadian Petroleum Association**
Arctic Petroleum Review, Summer 1988, Vol. 11, No. 1 (issue 28) [1988, 8p., eng] 44-3916
Arctic Petroleum Review, Winter 1988-89, Vol. 11, No. 2 (issue 29) [1989, 8p., eng] 44-3917
Arctic Petroleum Review, Winter 1990, Vol. 12, No. 2 (issue 31) [1990, 8p., eng] 44-3919
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CBR operations in cold weather: a bibliography, Vol. 1 [1989, 88p., eng] 44-1879
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Seismic reflection characteristics of glacial and glaci-marine sediment in the Gulf of Alaska and adjacent fjords [1989, p. 1-416, eng] 44-3943
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Cold regions engineering research strategic plan [1989, p.172-190, eng] 44-1761
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Large-scale physical oceanography of polar oceans [1990, p.171-222, eng] 44-3978
NOGAP B.6, Vol. 1 Beaufort Sea current measurements, March-August 1988 [1988, 19p., eng] 44-1475
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Role of sea ice and other fresh water in the arctic circulation [1989, p.14-485-14-498, eng] 44-452
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Association between ice nuclei and fracture interfaces in sucrose-water glasses [1989, p.103-107, eng] 44-2945
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Study on jökulhlaups (glacier outburst floods) of the Yarkant River (1989, p.169-177, eng) 44-3167
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GEOSAT altimeter geophysical data record user handbook (1987, 35p., eng) 44-1230
- Cheng, A.**
Preliminary testing of a sea ice model for the Greenland Sea (1990, p.259-277, eng) 44-3863
- Cheng, C.Y.**
Vacuum freezing multiple phase transformation processes (1987, p.139-153, eng) 44-1788
- Cheng, W.C.**
Vacuum freezing multiple phase transformation processes (1987, p.139-153, eng) 44-1788
- Cheredeev, S.I.**
Main factors of regional oil-and-gas-bearing potential in the Soviet West Arctic (1990, p.359-361, eng) 44-4107
- Cherepanov, N.V.**
Method of making ice with given physical properties (1989, 11p., eng) 44-1497
- Cherepanova, R.G.**
Study of thermal processes and technological systems in processing open freight cars using an induction assembly for mechanizing the unloading of frozen coal (1988, p.67-74, rus) 44-1501
- Cherkasov, P.A.**
Dynamics of the Nizkomorennyi rock glacier in Dzhangarskiy Alatau in a 35-year period (1989, p.180-216, rus) 44-1397
Method for calculating the size of mountain glaciers using data from land-based and airborne radar surveys (in the example of Dzhangarskiy Alatau) (1989, p.18-37, rus) 44-1386

- Cherkasova, G.V.**
Prolonged anabiosis for sporogenous bacteria in the interior of the Central Antarctic Glacier (1989, p.566-571, eng) 44-1473
- Chernad'ev, V.P.**
Reliability of snow cover estimates through calculations of mid-year ground temperature and frost depth (1985, p.31-37, rus) 44-2368
- Cherniak, M.M.**
Effect of anti-hail efforts on the polluted atmosphere and of deposits by hail modification products (1989, p.145-151, rus) 44-822
- Chernous, P.A.**
Accuracy of determining snow transfer during a storm and the quality of avalanche hazard diagnostics (1989, p.101-111, rus) 44-1578
All-Union Conference on Avalanches, 3rd, Kirovsk, USSR, Sep. 1986. Proceedings (1989, 247p., rus) 44-1562
Statistical modeling of variable conditions in snow cover on mountain slopes (1989, p.61-68, rus) 44-1573
TsPZ snowdrift gages and results of their testing (1989, p.95-101, rus) 44-1577
- Chernov, I.U.I.**
All-Union conference on interactions of organisms in the tundra ecosystems, Vorkuta, Sep. 5-8, 1989. Summaries (1989, 194p., rus) 44-3578
- Chernov, S.**
Loads on shafts of river icebreakers (1986, p.31, rus) 44-330
- Chernova, L.P.**
Annotated list of the Soviet literature on glaciology for 1986 (1989, p.173-208, rus) 44-357
- Cherouka, M.W.**
Development of a procedure for predicting propeller-ice interaction forces (1989, 263p., eng) 44-391
- Cherry, J.G.**
Comparison of runoff occurring on frozen and unfrozen soils (1990, p.279-285, eng) 44-2995
- Chertanov, S.P.**
"Folk glaciology" in Central Asia (1989, p.35-43, rus) 44-333
- Chervinskaya, O.P.**
Acoustic properties of icy soils and ice (1989, 133p., rus) 44-3550
Changes in structure and properties of frozen soils under the effect of pressure and temperature (1985, p.13-20, rus) 44-2365
- Cheng, F.B.**
Experimental study of freeze-coating on a chilled axially moving wire (1990, p.431-439, eng) 44-4244
- Cheshina, S.P.**
Cyclic endurance of ferritic-pearlitic grade steels in thermal cycling at reduced temperatures (1989, p.612-613, eng) 44-530
- Chiang, H.**
Solidification around a cylinder in laminar cross flow (1989, p.322-327, eng) 44-2389
- Chiba, M.**
West Siberian spring snow cover and East Asian June 500mb height (1989, p.51-54, eng) 44-1614
- Chichagov, V.P.**
Problem of geomorphological correlation (1989, 253p., rus) 44-2048
- Chichasov, G.N.**
Contemporary Tien Shan glacier oscillations in climate diagnostics of recent years (1988, p.128-135, rus) 44-4319
- Chida, K.**
Solidification blockage of laminar flow in 90-degree bend (with reference to dimensionless representation of curved pipe flow) (1989, p.83-92, eng) 44-690
- Chigir, V.G.**
Oases of the North (1988, 170p., rus) 44-1876
- Chikara, M.**
Effect of pulse length changes on Weibull clutter of sea ice (1990, p.15-18, eng) 44-2639
- Chilingarov, A.I.**
Icebreaker *Vladivostok* rescue expedition (1989, p.10-16, rus) 44-2819
- China, T.J.H.**
Report on a reconnaissance of the glaciers of Terra Nova Bay area (1989, p.299-319, eng) 44-3051
Sedimentation in proglacial Ivory Lake, Southern Alps, New Zealand (1990, p.26-42, eng) 44-2661
- Chistiakov, V.K.**
Borehole shaft stability during deep drilling of ice cover (1989, p.39-50, rus) 44-3493
- Chistiakova, I.A.**
Types of sediments and evolution of conditions for sedimentation in the Barents Sea in late- and postglacial time (1990, p.82-90, rus) 44-3065
- Chiu, C.S.**
Phase and travel-time variability of adiabatic acoustic normal modes due to scattering from a rough sea surface, with applications to propagation in shallow-water and high-latitude regions (1989, 9p., eng) 44-996
- Chiu, L.S.**
Global snow variations derived from SMMR: preliminary results (1990, p.213-217, eng) 44-3853
- Chlenov, A.V.**
Making oil and gas development in arctic regions ecological (1990, p.19-22, rus) 44-2657
- Chmereva, G.V.**
Preliminary results of an evaluation of the cost effectiveness of the anti-avalanche department for avalanche prevention in the Apatit industrial complex quarries (1989, p.14-19, rus) 44-1564
- Cho, N.**
Role of convective motion during dendrite growth: experiments under variable gravity (revised) (1987, 126p., eng) 44-1293
- Cho, S.J.**
Analysis of melting at the wall in laminar flow in a cylindrical channel (1990, p.443-454, eng) 44-4279
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Expert system assisting power system operators to decide deicing countermeasures against snow accretion on transmission lines (1989, p.150-155, jpn) 44-2871
- Choi, S.U.**
Advanced energy transmission fluids for district heating and cooling (1987, p.202-211, eng) 44-15
- Choiński, A.**
Hydrology of the mouth section of the Ebbelva and the Petuniabukta, Billefjorden, central Spitsbergen (1989, p.457-464, eng) 44-3063
- Chonan, M.**
Analysis of frost preventing measure at Hoheikyō tunnel (1989, p.225-242, jpn) 44-3179
- Chou, W.X.**
Case study on freezing pressure in a deep shaft (1989, p.481-486, eng) 44-923
Design problems of shaft lining and freezing wall in deep shaft sinking by the freezing process (1989, p.487-490, eng) 44-924
- Christensen, F.T.**
Temporal variation of freezing degree days in Danish domestic waters (1988, p.201-206, eng) 44-1139
- Christensen, M.I.**
Subsurface temperature predictions for hydropower developments (1988, p.25-34, eng) 44-233
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Brief and vigorous N₂O production by soil at spring thaw (1990, p.1-4, eng) 44-2794
- Christenson, M.S.**
Experiments on solidification of an aqueous sodium carbonate solution in a horizontal cylindrical annulus (1989, p.998-1005, eng) 44-1840
- Christian, M.B.**
International Ice Patrol: the battle continues (1990, p.8-10, eng) 44-2437
- Christiansen, J.W.**
Low energy ion bombardment of ices (1989, 88p., eng) 44-967
- Christiansen, V.T.**
Freeze-thaw deterioration of concrete pavements (1989, p.97-104, eng) 44-685
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Monitoring pavement responses to traffic loads (1989, p.180-185, eng) 44-1656
- Christophersen, N.**
Changes in soil and stream hydrochemistry during periods of spring snowmelt at a pristine site in mid-Norway (1989, p.321-337, eng) 44-267
- Chu, M.L.**
Experimental evaluation of the tensile strength of impact ice (1989, p.1205-1208, eng) 44-1512
- Chu, P.C.**
Air-ice-ocean feedback mechanisms and ice oscillation on millennial time scales (1990, p.28-31, eng) 44-4156
Air-sea feedback mechanism for quasi-geostrophic water movement near a fast shelf-ice edge with a small curvature (1987, p.31-42, eng) 44-291
- Chubarov, V.N.**
All-Union Scientific and Technical Seminar, 10th, Moscow, July 4-6, 1989. Using new geophysical methods to solve engineering geological and hydrogeological problems. Summaries (1989, 272p. (Pertinent p.124-129, 191-206, 237-239), rus) 44-3489
- Chugui, I.V.**
Drift of the *Mikhail Somov* in the Pacific ice massif (Mar.-July 1985) (1989, p.52-56, rus) 44-2822
- Chugunov, V.A.**
Determination of the equilibrium shape of the bodies formed during the solidification of filtration flow (1990, p.773-778, eng) 44-3112
Numerical investigation and self-similar solutions of the glacier-ocean interaction problem (1987, p.679-683, eng) 44-1515
- Chun, M.H.**
Analysis of melting at the wall in laminar flow in a cylindrical channel (1990, p.443-454, eng) 44-4279
- Chung, H.S.**
Environment around King Sejong Station, King George Island, Antarctica in 1988/89 (1990, p.59-65, kor) 44-4253
- Chung, J.S.**
International arctic research programs (1989, 74p., eng) 44-124
- Proceedings, Vol.2: Offshore mechanics (1989, 767p., eng) 44-1112
- U.S. Federal arctic research (1989, p.65-74, eng) 44-130
- Chung, P.T.**
Catalogue of oil properties (1986, 284p. + appends., eng) 44-3961
- Chung, Y.S.**
Concentrations of atmospheric constituents observed at Alert, Canada, in relation to air trajectories and synoptic systems (1989, p.317-330, eng) 44-2183
- Churcher, A.C.**
Ice load criteria for arctic vessels (1990, p.W/1-W/32, eng) 44-3484
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Prediction of pavement layer temperature during winter months using a computer model (1988, p.2-19, eng) 44-2841
- Chuvilla, E.M.**
Experimental studies of the microstructure of ice-methane hydrate agglomerate (1990, p.38-44, rus) 44-4542
- Chylek, P.**
Graphitic carbon in snow (1989, p.151-160, eng) 44-1949
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New water potential including polarization: application to gas-phase, liquid, and crystal properties of water (1990, p.6755-6760, eng) 44-3593
- Claflay, K.J.**
Vector analysis of ice petrographic data (1989, p.129-141, eng) 44-4006
- Clague, J.**
Catastrophic outburst floods (1987, p.18-21, eng) 44-1533
- Clague, J.J.**
Destructive mass movements in high mountains: hazard and management (1984, 230p., eng) 44-369
Pandemonium Creek rock avalanche, British Columbia (1989, p.427-446, eng) 44-2066
- Clapsaddle, C.**
Sorption behavior of SO₂ on ice at temperatures between -30 C and -5 C (1989, p.1173-1176, eng) 44-1068
- Clark, C.H.**
Accuracy and precision of GOES data collection platforms for temperature measurements (1989, 14p., eng) 44-2846
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Pipeline route selection in an iceberg-scoured seabed (1989, p.51-67, eng) 44-681
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Management of sediment transported by glacial melt-water streams and its significance for the estimation of sediment yield (1989, p.1-5, eng) 44-537
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Clast ploughing, lodgement and glacier sliding over a soft glacier bed (1989, p.201-207, eng) 44-944
Relative differences between glacially crushed quartz transported by mountain and continental ice—some examples from North America and East Africa; discussion (1989, p.1195-1205, eng) 44-2277
- Clarke, A.D.**
Aerosol light absorption by soot in remote environments (1989, p.161-171, eng) 44-1950
In-situ measurements of the aerosol size distributions, physicochemistry and light absorption properties of arctic haze (1989, p.255-266, eng) 44-2179
Soot in the atmosphere and snow surface of Antarctica (1990, p.1811-1816, eng) 44-2383
- Clarke, D.B.**
Information management-state of the art—the SHRP LTPP experience (1989, p.118-127, eng) 44-1649
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Lacustrine sedimentary record of ice-dammed Neoglacial Lake Alsek (1989, p.2092-2105, eng) 44-2273
- Claud, C.**
Retrieval of mesoscale meteorological parameters for polar latitudes (MIZEX and ARCTEMIZ campaigns) (1989, p.205-212, eng) 44-1014
- Clausen, H.B.**
Century old record of lead-210 fallout on the Greenland ice sheet (1990, p.29-38, eng) 44-3416
- Clausing, A.M.**
Convective heat transfer research using a cryogenic environment (1990, p.335-340, eng) 44-3575
- Clay, P.R.**
Real-time environmental arctic monitoring (R-TEAM) deployment cruise (1988, 53p., eng) 44-858
- Clayton, J.R.**
Suspended-matter scavenging by rising frazil ice (1990, p.97-100, eng) 44-3826
- Clayton, J.R., Jr.**
Effects of advancing freeze fronts on distributions of fine-grained sediment particles in seawater- and freshwater-slush ice slurries (1990, p.145-151, eng) 44-2399
Movements of fine-grained sediment particles in freshwater- and seawater-slush ice slurries during freezing front advances (1990, p.111-114, eng) 44-3831
- Clayton, L.**
Glacial Lake Wisconsin (1989, 80p., eng) 44-2070

- Cleasby, J.L.**
Cold-climate nitrifying biofilters: design and operation considerations [1990, p.50-57, eng] 44-2833
- Cleland, A.C.**
Prediction of rates of freezing, thawing or cooling in solids of arbitrary shape using the finite element method [1984, p.6-13, eng] 44-3046
- Cleland, D.J.**
Prediction of rates of freezing, thawing or cooling in solids of arbitrary shape using the finite element method [1984, p.6-13, eng] 44-3046
- Clement, B.M.**
Late Pliocene variation in Northern Hemisphere ice sheets and North Atlantic deep water circulation [1989, p.413-446, eng] 44-1734
Pleistocene evolution: Northern Hemisphere ice sheets and North Atlantic Ocean [1989, p.353-412, eng] 44-1733
- Clements, R.**
Low temperature starting of diesel engines using timed spark discharge [1985, 10p., eng] 44-1794
- Cler, G.**
Performance of an ice-in-tank diurnal ice storage cooling system at Fort Stewart, GA [1990, 35p., eng] 44-4462
- Clifton, J.R.**
Frost-resistance of concrete [1990, 22p., eng] 44-2816
Pore structure of concrete and freezing vulnerability [1989, 18p., eng] 44-2815
- Close, A.R.**
Algae concentrated by frazil ice: evidence from laboratory experiments and field measurements [1989, p.313-316, eng] 44-1489
Microorganisms concentrated by frazil ice: evidence from laboratory experiments and field measurements [1990, p.92-96, eng] 44-3825
Nutrient concentrations in antarctic pack ice during the austral winter [1990, p.35-40, eng] 44-3814
- Cloutier, M.J.**
Acoustic velocities and densities of polycrystalline ice Ih, II, III, V, and VI by Brillouin spectroscopy [1990, p.1909-1914, eng] 44-2752
- Cloutier, M.**
Ice-push bedrock and its syngenetic till at Pont-Rouge, Québec [1990, p.33-42, fre] 44-3531
- Clow, G.**
Sand/ice interactions and sediment deposition in perennally ice-covered antarctic lakes [1989, p.237-240, eng] 44-659
- Coburn, J.L.**
Bering Sea winter ice edge data collection aboard USCGC Polar Sea. Vol.3. Propeller-ice loads. Draft report Apr.-Aug. 86 [1986, 350p., eng] 44-883
Navarin Basin and ice edge data collection aboard USCGC Polar Sea. Vol.1. Environmental data, March/April 1985 [1986, 487p., eng] 44-1075
Navarin Basin and ice edge data collection aboard USCGC Polar Sea. Vol.2. Ice milling data, March/April 1985 [1986, 215p., eng] 44-1076
Navarin Basin and ice edge data collection aboard USCGC Polar Sea. Vol.3. Field study of personnel evacuation and survival from arctic class ships, March/April 1985 [1986, 88p., eng] 44-1077
- Coetzee, N.F.**
NDT in cold regions: a review of the state-of-the-art of deflection testing [1989, p.198-209, eng] 44-1658
- Cogley, J.G.**
Properties of surface runoff in the High Arctic [1975, 358p., eng] 44-1793
- Cohen-Trenoudji, P.**
Acoustic measurements on soaked soils during thaw and unfrozen water content determination [1989, p.551-553, eng] 44-932
- Colbeck, S.C.**
Air movement in snow due to windpumping [1989, p.209-213, eng] 44-1547
Does snow have ion chromatographic properties [1989, p.165-171, eng] 44-4009
Ski friction and thermal response [1989, p.223-225, eng] 44-3924
Snow cover and glacier variations [1989, 111p., eng] 44-165
Thermal response of downhill skis [1989, 40p., eng] 44-2361
- Colbourne, B.**
Some exploratory tests on circular and sidewall ACIB concepts [1989, p.39-55, eng] 44-4134
- Colbourne, D.B.**
Ice capable research vessels [1989, 5p., eng] 44-3118
- Cold Region Technology Conference, 2nd, Sapporo, Japan, Nov. 27-29, 1986**
Proceedings [1986, 666p., jpn] 44-2445
- Cold Region Technology Conference, 3rd, Sapporo, Japan, Nov. 18-20, 1987**
Proceedings [1987, 503p., jpn] 44-2526
- Cold Region Technology Conference, 4th, Sapporo, Japan, Nov. 8-10, 1988**
Proceedings [1988, 676p., jpn] 44-2666
- Cold Region Technology Conference, 5th, Sapporo, Japan, Nov. 6-8, 1989**
Proceedings [1989, 645p., jpn] 44-2859
- Cold Region Technology Conference, Sapporo, Japan, Nov. 21-22, 1985**
Proceedings [1985, 577p., jpn] 44-2296
- Cold weather operation of Detroit Diesel engines**
Cold weather operation of Detroit Diesel engines [1989, 16p., eng] 44-2044
- Cole, D.M.**
Cyclic loading of saline ice: initial experimental results [1990, p.265-271, eng] 44-2234
Resilient modulus determination for frost conditions [1989, p.320-333, eng] 44-1668
Use of the mechanical properties of ice in the development of predictive models [1989, p.87-99, eng] 44-3139
- Cole, F.E.**
Siliceous sponge communities, biological zonation, and recent sea-level change on the arctic margin: Ice Island results [1989, p.2341-2355, eng] 44-2275
- Coleman, T.**
Safety of liquid carbon dioxide storage vessels [1989, p.29-30, eng] 44-3696
- Coleou, C.**
Energy and mass model of snow cover suitable for operational avalanche forecasting [1989, p.333-342, eng] 44-1894
- Colhoun, E.A.**
Subglacial meltwater channels at Cape Jones, Obruchev Hills, Antarctica [1989, p.234-246, eng] 44-4289
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Laboratory and field studies on the durability of thermoplastic road marking materials [1988, 51p., eng] 44-677
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Characterization of hydrocarbon gas within the stratigraphic interval of gas-hydrate stability on the North Slope of Alaska, U.S.A. [1990, p.279-287, eng] 44-3361
Origin of natural gas hydrates on the North Slope of Alaska [1989, p.3-9, eng] 44-3802
- Collier, P.**
Mapping very low surface temperature in the Scottish Highlands using NOAA AVHRR data [1989, p.1519-1529, eng] 44-773
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Thermal infrared survey of winter trails in the Ft. Wainwright Training Area, Alaska [1990, 16p., eng] 44-3988
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Influences of climatic fluctuations and changes in glacerised area on runoff from alpine basins [1988, p.77-86, eng] 44-237
Seasonal development of subglacial drainage and suspended sediment delivery to melt waters beneath an alpine glacier [1989, p.45-50, eng] 44-547
- Collins, M.J.**
Synoptic ice motion from AVHRR imagery: automated measurements versus wind-driven theory [1989, p.79-85, eng] 44-1529
- Collins, R.L.**
Ice [1989, p.43-47, eng] 44-3583
- Colonell, J.M.**
Beaufort Sea causeways and coastal ocean dynamics [1990, p.509-516, eng] 44-2764
- Colony, R.**
Estimating oceanic heat flux from sea-ice thickness and temperature data [1990, p.315-318, eng] 44-4217
- Colorado. University. Institute of Arctic and Alpine Research**
Annual report, 1988 [1988, 28p., eng] 44-98
- Comfort, G.**
Field measurement of pack ice stresses [1990, p.177-181, eng] 44-2222
Physical modelling of a first year ridge ramming event [1990, p.A/1-A/24, eng] 44-3465
Ridge modelling: Model scale simulation of ridge ramming event with the USCG Polar Star [1989, p.121-126, eng] 44-3019
- Comiskey, A.L.**
Atlas of oceanographic information for Norton Sound, Alaska. Final report [1987, 143p., eng] 44-679
- Comiso, J.C.**
Airborne passive microwave observations of arctic sea ice [1990, p.233-235, eng] 44-3857
Arctic multiyear ice classification and summer ice cover using passive microwave satellite data [1990, p.13,411-13,422, eng] 44-4545
Concurrent remote sensing of arctic sea ice from submarine and aircraft [1989, 20p., eng] 44-3376
Satellite-derived ice data sets No.2: arctic monthly average microwave brightness temperatures and sea ice concentrations, 1973-1976 [1987, 43p., eng] 44-1217
Satellite ocean color studies of antarctic ice edges in summer and autumn [1990, p.9481-9496, eng] 44-4328
SMMR observations of the sea ice regime in the Ross Sea, 1979-1985 [1990, p.179-181, eng] 44-3846
- Concerns over cooling**
Concerns over cooling [1988, p.62-68, eng] 44-752
- Conference of Arctic and Nordic Countries on Coordination of Research in the Arctic, Leningrad, U.S.S.R., Dec. 1988.**
Proceedings-Pt.1 and Pt.2
Arctic research: advances and prospects [1990, 366p. + 445p., eng] 44-4061
- Conference of the Comité Arctique International, 6th, Fairbanks, AK, May 13-15, 1985**
Proceedings [1989, 637p., eng] 44-3427
- Congalton, R.G.**
Satellite and geographic information system estimates of Colorado River Basin snowpack [1989, p.1629-1635, eng] 44-3776
- Connor, B.**
Alaska's experiences with non-destructive testing [1989, p.226-233, eng] 44-1660
BERG2 microcomputer estimation of freeze and thaw depths and thaw consolidation [1989, 32p., eng] 44-2936
Geosynthetic reinforcement of paved road embankments on polygonal ground [1990, p.102-112, eng] 44-4490
- Connors, D.N.**
Small-scale under-ice morphology study in the high Arctic [1990, p.145-151, eng] 44-3839
- Conway, T.J.**
Carbon dioxide and methane in the arctic atmosphere [1989, p.81-99, eng] 44-2169
- Cook, K.H.**
Atmosphere's response to the ice sheets of the last glacial maximum [1990, p.32-38, eng] 44-4157
- Cookson, P.**
Model study of drift accumulation of a snow fence [1987, 75p., eng] 44-2952
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Assessing the effects of climatic changes on snowpack and streamflow [1989, p.118-121, eng] 44-511
Environmental conditions and processes associated with runoff from frozen soils at Reynolds Creek watershed [1990, p.125-134, eng] 44-2975
Predicting snowmelt runoff on sagebrush rangeland using a calibrated SPUH hydrology model [1989, p.1351-1357, eng] 44-1560
Proceedings [1990, 318p., eng] 44-2958
- Coon, M.D.**
Beaufort and Chukchi Sea ice motion part 2—onset of large scale Chukchi Sea ice breakout [1979, 92p., eng] 44-4139
- Cooper, D.J.**
Geographical and ecological relationships of the arctic-alpine vascular flora and vegetation, Arrigetch Peaks region, central Brooks Range, Alaska [1989, p.279-295, eng] 44-1092
- Cooper, H.J.**
Simulation of microwave brightness temperatures of an evolving hailstorm at SSM/I frequencies [1990, p.2-13, eng] 44-2758
- Corapcioglu, M.Y.**
Modeling of solute rejection in freezing soils [1990, p.195-201, eng] 44-2983
- Corder, P.R.**
Analysis of the composite ice wall [1990, p.21-39, eng] 44-3798
Analytical simulation of the composite ice wall [1989, p.174-180, eng] 44-1197
- Cornford, A.B.**
Arctic data compilation and appraisal. Vol.1. Beaufort Sea: physical geography—temperature, salinity, currents and water levels [1982, 279p., eng] 44-1436
Arctic data compilation and appraisal. Vol.2. Beaufort Sea: chemical oceanography [1982, 243p., eng] 44-1437
Arctic data compilation and appraisal. Vol.7. Canadian Basin-Arctic Ocean: physical geography—temperature, salinity, current and water levels [1984, 624p., eng] 44-1458
- Cornille, P.**
Trace element composition and origin of the atmospheric aerosol in the Norwegian Arctic [1989, p.2551-2569, eng] 44-2268
- Corte, A.E.**
Pleistocene ice wedge casts at 34S eastern Andes piedmont, south-west of South America [1989, p.125-136, eng] 44-2618
Three permafrost conditions indicated by geophysical soundings in Tertiary sediments at Seymour Island, Antarctic Peninsula [1990, p.301-307, eng] 44-3301
- Cortez, E.R.**
Antifreeze admixtures for cold weather concreting. Preliminary test results [1990, 8p., eng] 44-3915
- Cosby, J.M.**
Alaska index: streamflow, lake levels, and water-quality records to September 30, 1988 [1989, 189p., eng] 44-3737
- Cosens, S.E.**
Responses of migrating narwhal and beluga to icebreaker traffic at the Admiralty Inlet ice-edge, N.W.T. in 1986 [1988, p.39-54, eng] 44-861
- Cosentino, P.J.**
Pavement design with the pavement pressuremeter [1989, p.170-179, eng] 44-1658
- Cosgrove, D.M.**
Unusual jökulhlaup involving potholes on Black Rapids Glacier, Alaska Range, Alaska, U.S.A. [1990, p.125-126, eng] 44-3731
- Costard, F.**
Fluvial outbursts and cryokarstic processes on Mars and in Siberia [1990, p.97-104, fre] 44-3534
Some models related to fossil ice lenses on Mars [1987, p.243-251, fre] 44-1452

- Costello, P.J.**
Effect of volatility changes on vehicle cold-start driveability [1989, 20p., eng] 44-2858
- Cota, G.F.**
AMERIEZ 1986: microbial growth and metabolism in sea ice and the water column of the marginal ice zone [1989, p.188-190, eng] 44-29
- Cote, P.**
Interpreting satellite imagery [1989, p.58-59, eng] 44-273
- Côté, P.A.**
Characterization of snowmelt from a dump site [1989, p.211-215, fre] 44-1763
- Cotton, W.R.**
Cloud/mesoscale model development and application studies. Final report, October 11, 1983-June 20, 1987 [1987, 150p., eng] 44-678
- Cottrill, S.M.**
Development and field use of a snow collector for acid precipitation studies [1988, 69p., eng] 44-1051
- Coughlan, J.C.**
MTCLIM: a mountain microclimate simulation model [1989, 52p., eng] 44-2834
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Curtailing usage of de-icing agents in winter maintenance [1989, 125p., eng] 44-2111
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Chemically breaking the bond between ice and road surfaces [1987, 21p., eng] 44-3767
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NOGAP B6: Vol.2: physical data collected in the Beaufort Sea, March-June 1987 [1988, 157p., eng] 44-1509
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Proceedings, Vol.3: Materials technology [1989, 739p., eng] 44-1115
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North Pole 1983. History of its conquest and contemporary problems of maritime and air transportation [1987, 38p., eng] 44-596
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Geothermal investigations of the cryolithozone of Western Siberia [1989, p.5-11, rus] 44-2145
Heat flux of permafrost in West Siberia [1990, p.50-55, rus] 44-4300
- Devine, J.S.**
U.S. Federal arctic research [1989, p.65-74, eng] 44-130
- Devlin, J.P.**
Vibrational spectra and point defect activities of icy solids and gas phase clusters [1990, p.29-65, eng] 44-3967
- Dewez, V.**
Dynamics of discontinuous permafrost and climate changes in northern Quebec [1990, p.215-222, fre] 44-3665
- Dewitt, K.J.**
Convective heat transfer measurements from a NACA 0012 airfoil in flight and in the NASA Lewis Icing Research Tunnel [1990, 20p., eng] 44-2811
Measurement of local convective heat transfer coefficients from a smooth and roughened NACA-0012 airfoil: flight test data [1985, 17p., eng] 44-1100
- Dey, B.**
Observations of winter polynyas and fractures using NOAA AVHRR TIR images and Nimbus-7 SMMR sea ice concentration charts [1989, p.141-149, eng] 44-3896
Snow cover, snowmelt and runoff in the Himalayan river basins. Final technical report [1988, 37p., eng] 44-624
Test of snowmelt-runoff model for a major river basin in western Himalayas [1989, p.167-178, eng] 44-1323
- Diachok, O.I.**
Acoustic transients of the marginal sea ice zone: a provisional catalog [1989, 173p., eng] 44-1850
Estimation of average under-ice reflection amplitudes and phases using matched-field processing [1989, p.1909-1919, eng] 44-1320
- Diadin, I.U.A.**
Clathrate polyhydrates of peralkylonium salts and their analogs [1987, p.75-116, rus] 44-2426
Dynamic and thermodynamic properties of clathrate hydrates [1990, p.59-69, eng] 44-2775
- D'iaconov, P.I.U.**
Avisability of using drying drums for reclamation of frozen and water-saturated soils [1989, p.53-55, rus] 44-2647
- D'iaconova, I.N.**
Charge transfer in the interaction of polycrystalline ice spheres with ice crystals in a cloud of supercooled drops [1988, p.126-129, rus] 44-68
- Diamond, S.**
Fly ash concrete for highway use. Final report [1988, 377p., eng] 44-957
- Diatchenko, S.V.**
Effect of low temperatures on the damping properties of polymer coatings of glue composites "Sprut" [1990, p.681-684, eng] 44-3900
- Dibb, J.**
Ice-core records and ozone depletion—potential for a proxy ozone record [1988, p.64-68, eng] 44-1698
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Chernobyl reference horizon (?) in the Greenland ice sheet [1989, p.987-990, eng] 44-466
Recent deposition of Pb-210 on the Greenland ice sheet: variations in space and time [1990, p.51-54, eng] 44-4161
- Dibbern, J.S.**
Hovercraft operations in Antarctica [1989, p.59-68, eng] 44-4135
- DiCenzo, P.D.**
Hydrology of small tributary streams in a subarctic wetland [1989, p.1557-1566, eng] 44-1010
- Dick, A.L.**
Mercury content of antarctic surface snow: initial results [1989, p.973-978, eng] 44-3585
- Dick, R.A.**
Experimentation with various methods of de-icing and anti-icing for ships [1989, 64p. + appends., eng] 44-744
- Dick, R.C.**
Johnny Mountain gold mine—the high art of winter construction [1989, p.54, eng] 44-1929
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Determining ice content of a fine ice slurry from density measurements [1989, p.2033-2036, eng] 44-2006
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Oil spills in leads: tank tests and modelling [1987, 58p. + appends., eng] 44-3963
- Dickinson, R.E.**
Use of numerical models to project greenhouse gas-induced warming in polar regions (the conceptual basis developed over the last twenty years) [1989, p.98-102, eng] 44-1023
- Dickman, M.**
Physico-chemical characteristics and origin of hypersaline meromictic Lake Garroo in the Canadian High Arctic [1989, p.215-234, eng] 44-87
- Didion, D.**
Study of flow boiling heat transfer with refrigerant mixtures [1989, p.1751-1764, eng] 44-666
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Sea ice: a habitat for the foraminifer *Neogloboquadrina pachyderma*? [1990, p.86-92, eng] 44-3824
- Diesel fuel: cold-weather operation**
Diesel fuel: cold-weather operation [1987, 5p., eng] 44-1857
- Digby-Argus, S.A.**
Internal structure, composition and properties of brackish ice from the Bay of Bothnia [1990, p.5-15, eng] 44-3809
Internal structure, composition and properties of brackish ice from the Bay of Bothnia during the BEPERS-88 experiment [1989, p.1318-1333, eng] 44-4432
LIMEX '87 international experiment in the Labrador Sea marginal ice zone [1989, p.335-342, eng] 44-763
- Dijkmans, J.W.A.**
Frost wedges in an eolian sand sheet near Sondre Stromfjord, W. Greenland and their paleoenvironmental implications [1989, p.339-353, eng] 44-1684
- Diller, K.R.**
Interface movement during serial freezing and thawing of a binary solution [1988, p.243-251, eng] 44-1420
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Factors affecting alkalinity concentrations of streamwater during snowmelt in central Ontario [1989, p.1658-1666, eng] 44-997
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Ice strength estimates from submarine topsounder data [1989, p.425-426, eng] 44-3160
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Basic parameters of continentality in soil climate of lowland plains of the USSR [1989, p.98-105, eng] 44-3251
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Typical paths of supercell hail clouds in the northern Caucasus [1989, p.99-109, rus] 44-816
- DiNapoli, F.R.**
Low frequency attenuation in the Arctic Ocean [1986, p.387-395, eng] 44-1744
- Ding, K.**
Density-functional theory for the freezing of water [1987, p.1698-1701, eng] 44-2115
- Ding, L.F.**
Development of local climate in the glaciated area in the head of Urumqi River [1989, p.325-334, eng] 44-3610
Heat balance study on Glacier No. 1 at head of Urumqi River, Tianshan Mountains, China [1989, p.298-309, eng] 44-3608
- Dinkler, K.L.**
Variability of the marine atmospheric boundary layer in the Greenland Sea marginal ice zone: a case study [1988, 65p., eng] 44-843
- Dionne, G.**
Settlement and consolidation of a thawing clay silt at Kangiq-sualujuaq [1990, p.309-316, fre] 44-3676
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Frost bursting: a violent expression of frost action in rock [1989, p.2075-2080, eng] 44-2272
Frost weathering and ice action in shore platform development with particular reference to Quebec, Canada [1988, p.117-130, eng] 44-217
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Periglacial bibliography for Québec, 1969-1989, including glacial topics from 1960-1989 [1989, p.233-243, fre] 44-3529
Ploughing boulders along shorelines, with particular reference to the St. Lawrence estuary [1988, p.297-308, eng] 44-3274
Role of ice and frost in tidal marsh development—a review with particular reference to Quebec, Canada [1989, p.171-210, eng] 44-3273
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Variability of accumulation and ablation of mountain glaciers [1989, p.92-102, rus] 44-342
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Weathering trends in fine debris beneath a snow patch, Niwot Ridge, Front Range, Colorado [1989, p.307-321, eng] 44-2636
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Monitoring of snow cover pollution in the USSR by background and impact levels [1989, p.42-55, rus] 44-2937
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Thermophysical properties of sea ice [1988, 258p., rus] 44-1402
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Many-year variability of general circulation structure and the character of its display in atmospheric processes of the polar zone [1990, p.170-176, eng] 44-4086
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Changes in the kinematic parameters of the propeller-shaft-engine system during interaction between propeller and ice [1984, p.36-43, rus] 44-3216
Estimating the probability of reducing the revolution rate and jamming of ship propellers in ice [1987, p.64-68, rus] 44-3217
- Dneprovskaja, O.V.**
Radiocarbon datings obtained by the Laboratory on the Geochemistry of Permafrost of the Institute of Permafrost SO AN SSSR. Report 1988. p.143-145, rus] 44-2521
- Dnes, W.V.**
Revised ground snow loads for the 1990 National Building Code of Canada [1989, p.267-278, eng] 44-122
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Evaluation of scaling effect in low-cycle fatigue [1990, p.86-91, rus] 44-4356
- Dobrowolski, A.**
Changes of the ice thermal regime in the river caused by heated water discharges [1989, p.55-65, eng] 44-2023
New techniques for slush ice run measurement in Poland [1989, p.46-54, eng] 44-2022
- Dobshits, L.M.**
Highly frost-resistant cement concretes [1989, 127p., rus] 44-1726

- Dobsan, M.C.**
Mapping freeze/thaw boundaries with SMMR (scanning multichannel microwave radiometer) data (1989, 28p., eng) 44-713
Mesoscale monitoring of the soil freeze/thaw boundary from orbital microwave radiometry. Semiannual progress report (1988, 7p., eng) 44-892
- Dockery, H.A.**
Alaskan frozen soil impact tests of the B83-C/S and strategic earth penetrator (1987, 25p., eng) 44-960
- Dockus, D.A.**
DDT II: computerized lake-effect snow forecasts (1988, p.18-26, eng) 44-2088
- Dod, R.L.**
Graphitic carbon in snow (1989, p.151-160, eng) 44-1949
- Dod, T.**
Airborne passive microwave observations of arctic sea ice (1990, p.233-235, eng) 44-3857
- Dodge, S.L.**
Forest transitions and buried glacial outwash within the beech-maple region of Michigan, USA (1989, p.137-144, eng) 44-2619
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Interannual variations in snowpack in the Rocky Mountain region (1989, p.21-30, eng) 44-500
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Fundamental study on slush avalanche on the slope of Mt. Fuji (1989, p.17-23, jpn) 44-2632
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On the utilization of latent heat energy of naturally frozen ice (1986, p.417-422, jpn) 44-2482
On the utilization of latent heat energy of naturally frozen ice (ice plant) (1987, p.27-30, jpn) 44-2529
- Doi, S.**
Degradation mechanism of pavement aggregates by anti-freezes and snow melting agents (1985, p.289-292, jpn) 44-2327
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Snow-drainage booster and heat-circulating system of melting snow-hole (1988, p.419-424, jpn) 44-2713
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Glaciers (1989, 447p., rus) 44-2927
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Creep rates of spray ice (1990, p.185-194, eng) 44-3626
Elastic visco-plastic modelling of a frozen sand using equivalent time (1990, p.133-139, eng) 44-3799
Pressuremeter creep testing in ice: calibration and test procedures (1990, p.3-9, eng) 44-4147
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Removal of atmospheric ice from broadcast towers using low-frequency, high-amplitude vibrations (1988, 6p., eng) 44-614
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Ice regime of rivers in the USSR (1987, 246p., rus) 44-1718
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Evaluation of weld-zone corrosion of shipbuilding steel plates for use in the arctic environment (1988, p.311-321, eng) 44-1024
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Transport distances of Finnish crystalline erratics during the Weichselian glaciation (1989, p.7-13, eng) 44-4501
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Polar ice ablation rates measured using *in situ* cosmogenic C-14 (1990, p.350-352, eng) 44-4039
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Calcium magnesium acetate for snow-and-ice control (1990, 2p., eng) 44-3047
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Calibration of the ARL and icing facility (1987, 21p., eng) 44-1608
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Ground-penetrating radar study of active layer thicknesses in areas of moist sedge and wet sedge tundra near Bethel, Alaska, U.S.A. (1990, p.175-182, eng) 44-4050
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Engineering and geocryological zoning along the Amur-Yakutsk Main Line within the Aldan plateau (1989, p.20-31, rus) 44-3231
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Numerical modelling of the Arctic Ocean water dynamics (1990, p.76-85, eng) 44-4069
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Ecological problems during construction of main pipelines (1989, p.118-123, rus) 44-4522
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- Dosov, V.N.**
Aircraft studies of polar stratospheric clouds in the Arctic in 1988 (1990, p.226-229, eng) 44-4093
International project of the ozonosphere investigation on Heiss Island (HIP experiment) (1990, p.224-226, eng) 44-4092
- Doughty, E.F.**
Alaska interim land cover mapping program: final report (1989, 10p., eng) 44-2951
- Douglas, B.C.**
GEOSAT altimeter geophysical data record user handbook (1987, 35p., eng) 44-1230
Greenland ice sheet: is it growing or shrinking (1990, p.288-289, eng) 44-3067
- Dovidenko, G.P.**
Fracturing mechanism and dust yield dynamics in impact breakage of permafrost (1988, p.438-441, eng) 44-223
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On the nature of Svalbard icebergs (1989, p.224-234, eng) 44-1550
Remote-sensing studies of Kvitøkjökulen, an ice cap on Kvitøya, north-east Svalbard (1990, p.75-81, eng) 44-3725
- Downes, M.T.**
Dynamics of ammonium oxidizer activity and nitrous-oxide (N₂O) within and beneath antarctic sea ice (1990, p.37-46, eng) 44-3893
- Downey, D.A.**
Artificial and natural icing tests of the UH-60A helicopter configured with the XM-139 multiple mine dispensing system (VOLCANO). Final report 10 Jan-22 Feb. 88 (1988, 56p., eng) 44-841
Natural icing re-evaluation of the EH-60A Quick Fix helicopter (1989, 65p., eng) 44-2649
- Downs, S.J.**
Boundary layer profile investigations downstream of an aero-engine intake anti-icing air exhaust slot (1987, 8p., eng) 44-1292
- Dozier, J.**
Estimation of properties of alpine snow from Landsat Thematic Mapper (1989, p.207-215, eng) 44-2596
Land-surface temperature measurement from space: physical principles and inverse modeling (1989, p.268-278, eng) 44-45
Remote sensing of snow in visible and near-infrared wavelengths (1989, p.527-547, eng) 44-50
Research relative to angular distribution of snow reflectance/snow cover characterization and microwave emission. Final report, July 1, 1983-September 30, 1987 (1987, 93p., eng) 44-1245
Spatial and temporal variation on net snow accumulation in a small alpine watershed, Emerald Lake basin, Sierra Nevada, California, U.S.A. (1989, p.56-63, eng) 44-549
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Stereological characterization of dry alpine snow for microwave remote sensing (1989, p.245-251, eng) 44-2598
- Draine, B.T.**
Infrared absorption features for tetrahedral ammonia ice crystals (1989, p.220-223, eng) 44-902
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Sulfur dioxide in the North American Arctic (1989, p.331-346, eng) 44-2184
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- Eastern Snow Conference**
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- Eastern-western Arctic sea ice analysis 1986. Annual reference report No.13, for period ending 1986**
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Determining ejection distances for avalanches of varied volume for the Western Caucasus [1989, p.47-51, rus] 44-620
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Rare second year -lake ice cover in the Canadian High Arctic [1989, p.299-306, eng] 44-1932
- Echelmeyer, K.**
Jakobshavn Isbrae, West Greenland: seasonal variations in velocity--or lack thereof [1990, p.82-88, eng] 44-3726
- Echert, D.C.**
Electromagnetic induction remote sensing of sea ice thickness. Phase 1. Final report 1 Jan.-31 Aug. 1986 [1986, 47p., eng] 44-787
- Eck, T.F.**
Diurnal patterns of the bi-directional reflectance of freshwater ice [1990, p.153-157, eng] 44-4183
- Eckert, E.G.**
Upper ocean internal waves in the marginal ice zone of the Greenland Sea [1989, 77p., eng] 44-973
Upper ocean internal waves in the marginal ice zone of the northeastern Greenland Sea [1990, p.9569-9574, eng] 44-4333
- Eda, K.**
Monitoring of runoff in rivers at local high water [1989, p.35-38, jpn] 44-3630
- Edgecombe, M.H.**
Results from the full scale testing of the new icebreaker *Oden* [1990, p.F/1-F/9, eng] 44-3469
Ship icebreaking dynamics and level ice resistance testing aboard USCGC *Polar Star* in Antarctica. Final report. Vol.1. Technical report [1985, 52p., eng] 44-1280
Ship icebreaking dynamics and level ice resistance testing aboard USCGC *Polar Star* in Antarctica. Final report. Vol.2. Technical appendices [1985, 302p., eng] 44-1281
- Edwards, B.D.**
System development for measurement of full scale ship ice impact forces [1984, p.K/1-K/15, eng] 44-3459
- Edgers, L.**
Field evaluation of criteria for frost susceptibility of soils [1988, p.73-85, eng] 44-914
Model simulations of Winchendon freeze-thaw field data [1988, p.65-72, eng] 44-913
- Edlund, S.A.**
1989 observations of soil, vegetation, and microclimate, and effects on slope hydrology. Hot Weather Creek basin, Ellesmere Island, Northwest Territories [1990, p.85-93, eng] 44-4494
Regional congruence of vegetation and summer climate patterns in the Queen Elizabeth Islands, Northwest Territories, Canada [1989, p.3-23, eng] 44-488
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Ice detection system for roads could save money and lives [1984, p.1626, eng] 44-2092
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Effect of antecedent freeze-thaw frequency on runoff and soil loss from frozen soil with and without subsoil compaction and ground cover [1989, p.799-811, eng] 44-1816
- Edwards, T.W.D.**
Hydrology and geochemistry studies, District of Keewatin, Northwest Territories, Canada [1990, p.159-165, eng] 44-3658
- Effects of cryogenic temperatures on materials properties. January 1972-January 1990. A Bibliography from the International Aerospace Abstracts Database. Report for Jan 72-Jan 90**
Effects of cryogenic temperatures on materials properties. January 1972-January 1990. A Bibliography from the International Aerospace Abstracts Database. Report for Jan 72-Jan 90 [1990, 24p., eng] 44-2817
- Elfmov, I.U.I.A.**
Naled formation and naled protection in the western part of the Baykal-Amur railroad [1990, p.89-101, rus] 44-4306
- Elfmov, I.U.I.A.**
Hydrogen bonding and processes of heterogeneous ice nucleation on small particles: molecular model and computer simulations [1989, p.1039-1041, eng] 44-2785
- Elfmov, M.V.**
Physiology of plants in a cold arid climate [1988, 159p., rus] 44-90
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Triumph of technology over geography: unlocking the Siberian maritime icebox [1987, 77p., eng] 44-1278
- Egginton, P.**
Influence of ice lens fabric on the hydraulic conductivity of thawing soil [1990, p.137-141, eng] 44-3655
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Applications of thematic mapper thermal infrared imagery for permafrost and terrain studies, Richards Island, N.W.T. [1990, p.231-238, eng] 44-3667
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Sea ice: a habitat for the foraminifer *Neogloboquadrina pachyderma*? [1990, p.86-92, eng] 44-3824
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Glacial history of Iceland during the past three million years [1988, p.227-234, eng] 44-13
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Characteristics of the dynamics of tangential forces of frost heave in the Chita region [1985, p.50-54, rus] 44-2372
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Comments on "Use of enhanced IR/visible satellite imagery to determine heavy snow areas" [1989, p.251-255, eng] 44-265
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Design of cold air distribution systems with ice storage [1989, p.1317-1322, eng] 44-449

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Resilient properties of Arkansas subgrades. Final report (1988, 116p., eng) 44-2814
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Problems on freezing at harbors in Hokkaido (1988, p.277-282, jpn) 44-2694
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Automatic weather and snow observation on Antarctica (1989, p.547-550, jpn) 44-2913
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EXSRM, an expert system for snowmelt runoff model (SRM) (1989, p.417-426, eng) 44-2194
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Comparative model tests in ice of a Canadian Coast Guard R-class icebreaker (1990, p.31-52, eng) 44-4421
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Equipment and systems that help control snow (1989, p.41-42, 45, eng) 44-3368
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Toxaphene and other organochlorines in Arctic Ocean fauna: evidence for atmospheric delivery (1989, p.307-313, eng) 44-1933
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- Erlingsson, B.**
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- Ervik, M.**
Atmospheric icing of transmission lines (1989, 67p. + appends., eng) 44-3330
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Performance of trucks braking on ice. Final report 25 Feb.-15 June 1987 (1987, 201p., eng) 44-1096
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Fatigue strength at subzero temperature of films made of polymer mixtures based on thermoplastic polyurethane (1988, p.685-693, eng) 44-1881
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20 year performance history of first insulated roadway on permafrost in Alaska (1990, p.403-408, eng) 44-3688
Cold regions engineering: climatic warming concerns for Alaska (1990, p.6-14, eng) 44-3385
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Two-dimensional coupled atmosphere-ice-sheet-continent model designed for paleoclimatic simulations (1990, p.55-57, eng) 44-4162
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Calibration of piezocones for investigations in soft soils and demands for accuracy of the equipment (1990, 62p., eng) 44-4461
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ITTC questionnaire on maneuvering in ice: summary of answers (1989, 13p., eng) 44-1596
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Greenhouse warming: consequences for Arctic climate (1990, p.54-66, eng) 44-3391
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Chaotic dynamics in continuous-mode icebreaking (1989, p.139-146, eng) 44-3022
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Foundation design against frost action in Europe. Final report, Aug. 86-Mar. 88 [1988, 365p., eng] 44-804
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Sea ice behavior at elastic, elasto-plastic and plastic stages of its deformation [1989, 6p., eng] 44-1498
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Compendium of marine meteorological and oceanographic products of the Ocean Products Center (Revision 1) [1989, 89p., eng] 44-790
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Airphoto analysis of winter seismic disturbance in northeastern Alaska [1989, p.362-367, eng] 44-1935
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6000-year climate records in an ice core from the Hoggsetta ice dome in northern Spitsbergen (1990, p.85-89, eng) **44-4167**
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- Radar image processing of the internal structure of snowpack (1988, p.313-320, jpn) **44-1298**
- Fujita, H.**
Plan for snow fences on multilane highways (1987, p.91-96, jpn) **44-3514**
- Fujita, M.**
Snow as water resource (1988, p.573-578, jpn) **44-2730**
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Deterioration of concrete exposed to coastal zone (1987, p.455-460, jpn) **44-2561**
- Study on improving the accuracy of observations of winter flow - Part 1 (1987, p.495-500, jpn) **44-3587**
- Fujita, S.**
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- Safety of traffic on floating ice sheet (1986, p.192-200, jpn) **44-2463**
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- Effect of temperature on the hydrogen bond distribution in water as studied by infrared spectra (1989, p.184-188, eng) **44-3170**
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- Fukai, T.**
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- Fukami, H.**
Ground temperature decrease with the infiltration of snow melt water (1989, p.320-324, jpn) **44-2896**
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- Seasonal changes in heterotrophic bacteria under fast ice near Syowa Station, Antarctica (1989, p.329-333, eng) **44-463**
- Fukazawa, Y.**
Weather characteristics on highway closures in blowing snow and its application (1989, p.110-114, jpn) **44-2864**
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Artificial permafrost and its application for low temperature food storage (1987, p.1-9, jpn) 44-1347
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Retardation method of snow melt for application to cold storage (1986, p.429-433, jpn) 44-2484
- Fukuda, T.**
Study of freezing behavior in a pipe with water flow (1987, p.141-149, jpn) 44-1348
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Slope erosion in cold regions (1985, p.298-302, jpn) 44-2328
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Melting around a horizontal cylinder imbedded in a frozen porous medium (1987, p.40-54, eng) 44-1339
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- Fukusawa, S.**
Meteorological observations at Syowa Station in 1985 by the 26th Japanese Antarctic Research Expedition (1989, p.191-219, jpn) 44-1470
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Effect of snow break forest to improve visibility in blowing snow (1985, p.527-532, jpn) 44-2342
Snowbreaking capacity of road cuts (1985, p.533-538, jpn) 44-2343
Visual range monitor used for blowing snow (1985, p.516-521, jpn) 44-2341
- Fulk, M.A.**
Regional climatic trends in northern New England (1988, p.64-71, eng) 44-3927
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Study on use of urban erosion control and space (1989, p.271-276, jpn) 44-3590
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Design and construction of the Mars ice island (1988, p.31-38, eng) 44-1013
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Creep rates of spray ice (1990, p.185-194, eng) 44-3626
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Microwave scattering models and basic experiments. Semi-annual report, 1 Nov. 1986-30 Apr. 1989 (1989, 32p., eng) 44-785
Modelling of microwave emission and scattering from snow and soil (1989, p.297-306, eng) 44-2603
- Funk, M.**
Assessing risks from glacier hazards in high mountain regions: some experiences in the Swiss Alps (1989, p.96-102, eng) 44-555
Forecasting the effects of a planned reservoir which will partially flood the tongue of Unteraargletscher in Switzerland (1989, p.76-81, eng) 44-552
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Road traffic information system in winter on the route 230 (1988, p.646-652, jpn) 44-2738
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Development and certification of a visibility-range monitor by image processing (1989, p.117-119, eng) 44-558
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Thermal sprayed coatings on concrete surface and its properties (1988, p.479-484, jpn) 44-2715
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Basin, the ice, the Champlain Sea (1988, p.15-24, eng) 44-4451
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PAN over the Arctic, observations during AGASP-2 in April 1986 (1989, p.301-316, eng) 44-2182
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General report on engineering design (1989, p.477-479, eng) 44-922
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Numerical study of the air sea interactions in the antarctic coastal zone and their implications on deep sea formation in the case of katabatic wind (1989, 40p. + 21p., eng) 44-1352
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AMERIEZ 1986 microzooplankton abundance and distribution in the ice-edge zone (1989, p.175-176, eng) 44-24
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Phagotrophy and fecal pellet production by an athecate dinoflagellate in antarctic sea ice [1990, p.75-84, eng] 44-3895
- Garrison, G.R.**
Acoustic reflections from cylindrical blocks of arctic ice, 1986 [1988, 108p., eng] 44-839
Coastal oceanography in the Beaufort Sea, summer 1985. Report for period ending 1985 [1987, 314p., eng] 44-699
- Garritv, C.**
Electrical, physical and microwave properties of snow-covered floating ice [1990, p.57-61, eng] 44-3819
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Thaw settlement around a building on warm ice-rich permafrost [1990, p.419-424, eng] 44-3690
- Gascard, J.C.**
Retrieval of mesoscale meteorological parameters for polar latitudes (MIZEX and ARCTEMIZ campaigns) [1989, p.205-212, eng] 44-1014
- Gasiewski, A.J.**
Numerical modeling of passive microwave O₂ observations over precipitation [1990, p.217-235, eng] 44-4128
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Enhanced diesel fuel low temperature operability—additive developments [1990, p.196-204, eng] 44-3986
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Field assessment of fisheries habitat-enhancement structures in Bingo Brook, Vermont, after the Spring 1989 ice run [1989, 12p., eng] 44-3923
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Ice observations on the Allegheny and Monongahela rivers [1988, 43p., eng] 44-800
- Gautier, C.**
Arctic marine radar development. Phase 1: selection of host marine radar. Final report [1990, Var. p., eng] 44-2768
Radar data gathering on M.V. Arctic - Final report [1990, 23p., eng] 44-3008
SINSS ice navigation console. Phase 2: console implementation and bridge upgrade. Final report [1989, Var. p., eng] 44-2769
- Gavrilov, G.G.**
Snow density as a criterion representing a mountain snow survey point [1989, p.143-146, rus] 44-2932
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- Gavril'ev, P.P.**
Some results from studies of seasonal thawing of soils, with underlying ice-saturated ground during irrigation [1988, p.41-48, rus] 44-1963
- Gavril'ev, R.I.**
Guide to forecasting the thermal regime of soils in Yakutia [1988, 240p., rus] 44-193
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- Gayet, J.F.**
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Biogenic particles in antarctic ice cores and the source of antarctic dust [1988, p.71-72, eng] 44-1701
Empirical functions for atmospheric aerosol size distribution [1989, p.351-353, eng] 44-455
- Gazaeva, Z.A.**
Typical paths of supercell hail clouds in the northern Caucasus [1989, p.99-109, rus] 44-816
- Geisel, F.A.**
Beaufort Sea data collection: multiyear ice research aboard USCGC Polar Sea, November 11-December 4, 1984 [1985, 245p., eng] 44-1282
Bering Sea data collection aboard USCGC Polar Star, Feb.-Mar., 1984. Vol 1. Environmental data. Draft report Mar.-Nov. 1984 [1984, 259p., eng] 44-1214
Bering Sea data collection aboard USCGC Polar Star, Feb.-Mar. 1984. Vol 2. Ship performance data. Draft report Mar.-Nov. 1984 [1984, 115p., eng] 44-1215
Level ice resistance of USCGC Polar Sea in Antarctica [1988, 94p., eng] 44-1944
Ship icebreaking dynamics and level ice resistance testing aboard USCGC Polar Star in Antarctica. Final report. Vol 1. Technical report [1985, 52p., eng] 44-1280
Ship icebreaking dynamics and level ice resistance testing aboard USCGC Polar Star in Antarctica. Final report. Vol 2. Technical appendixes [1985, 302p., eng] 44-1281
Summer multi-year ice properties in the Beaufort Sea (October 1982) [1982, 116p., eng] 44-1403
- Gekhman, A.S.**
To protect the environment of the Far North and build safe pipelines (field studies in Yamal) [1989, p.20-23, rus] 44-383
- Geleyn, J.F.**
Proceedings [1989, 653p., eng] 44-4040
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Controlling the thermal regime of tunnels in severe climatic conditions [1990, p.18-22, rus] 44-4483
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Energy and mass model of snow cover suitable for operational avalanche forecasting [1989, p.333-342, eng] 44-1894
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- Geological Society of America. Northeastern Section**
25th annual meeting [1990, 82p., eng] 44-2767
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Recent and older glaciation in the Ardon River valley [1989, p.55-66, rus] 44-1782
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Recent discoveries of snow algae in upstate New York and Quebec Province and preliminary reports on related snow chemistry [1989, p.196-200, eng] 44-4012
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Effect of global warming on arctic coastal and offshore engineering [1990, p.1-5, eng] 44-3384
Thermal and durability considerations for composite steel-concrete sandwich structures [1988, p.73-83, eng] 44-1738
- Getsen, M.V.**
All-Union conference on interactions of organisms in the tundra ecosystems, Vorkuta, Sep. 5-8, 1989. Summaries [1989, 194p., rus] 44-3578
Nitrogen in the arctic ecosystems [1990, p.135-140, eng] 44-4112
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- Gilbertson, T.A.**
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- Gil'man, I.A.D.**
Reinforcing and stabilizing buildings on sagging loess soils [1989, 159p., rus] 44-9
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Dependence of antarctic surface mass balance on temperature, elevation, and distance to open ocean [1990, p.3517-3531, eng] 44-3069
- Girovka, N.N.**
Possibility of forecasting avalanche formation from a snow slab in Zailiyskiy Alatau as a factor in the dynamics of the structure-strength characteristics of snow [1989, p.80-87, rus] 44-1390
- Giuffrida, M.R.**
Physical processes related to sea-ice divergence. Final report [1988, 11p., eng] 44-956
- Gjerp, S.A.**
Expected effects on the hydrography and brackish layer currents caused by hydroelectric discharges to a Norwegian fjord system [1988, p.315-323, eng] 44-258
Expected effects on the hydrography and brackish layer currents caused by hydroelectric discharges to a Norwegian fjord system [1988, p.137-145, eng] 44-3320
Power water discharge to Gaupnefjorden: hydrophysical impacts, problems and solutions [1987, p.159-171, eng] 44-3313
- Glacial geology and geomorphology of North America**
Glacial geology and geomorphology of North America [1989, 2 vols., var.p., eng] 44-3224
- Gladkov, M.G.**
Sea ice behavior at elastic, elasto-plastic and plastic stages of its deformation [1989, 6p., eng] 44-1498
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Diagrams of structural strength of steels with respect to cold brittleness [1990, p.51-56, rus] 44-4349
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Active patterned ground at sea level, Fourchu, Nova Scotia, Canada [1989, p.425-432, eng] 44-2012
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Glaciation interaction with the ocean: paleogeographic aspects [1988, 184p., rus] 44-275
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"Folk glaciology" in Central Asia [1989, p.35-43, rus] 44-333
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Interrelations of forest and swamp in a taiga zone [1988, 182p., rus] 44-1719
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Arctic tanker bow forms and evaluation of full scale propulsive performance in ice [1984, p.B/1-B 12, eng] 44-3451

- Modification and testing of a segmented model of an ice-breaker to evaluate ice resistance mathematical models [1989, 107p., eng] **44-399**
- Semi-empirical ice resistance model, Vol.1, main report. Final report Oct. 81-Apr. 83 [1983, 126p., eng] **44-885**
- Glichinskii, D.A.**
Permafrost, soils and microorganisms [1989, p.269-273, rus] **44-3558**
- Gloersen, P.**
Time lapse motion study of the "Odden" during 1978-1987 as observed with the Nimbus-7 scanning multichannel microwave radiometer [1990, p.177-179, eng] **44-3845**
- Glowacka, B.**
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- Glukhov, V.G.**
Icing of tall structures in the lowlands of the USSR [1989, 141p., rus] **44-761**
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- Gobinathan, R.**
Synthesis and X-ray diffraction analysis of AgI-CuBr solid solutions for ice nucleation [1990, p.263-265, eng] **44-3400**
- Synthesis of AgI-AgCl-CuI solid solutions for ice nucleation studies [1990, p.129-133, eng] **44-3796**
- X-ray analysis and ice nucleating behavior of the AgI-CuI-KI system [1989, p.4160-4163, eng] **44-1379**
- Gocho, M.**
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- Godcheva, E.A.**
Advisability of using drying drums for reclamation of frozen and water-saturated soils [1989, p.53-55, rus] **44-2647**
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Construction in water: manual [1989, 527p. (Pertinent p.97-110, 439-448), rus] **44-3360**
- Gogineni, S.**
Radar backscatter measurements over saline ice [1990, p.603-615, eng] **44-3901**
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Inexpensive polarimetric FM radar and polarimetric signatures of artificial sea ice [1989, p.188-191, eng] **44-3399**
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Battery actuation of NITINOL at sub-zero temperatures [1989, 22p., eng] **44-793**
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Mathematical model of lake acidification [1985, p.1-8, eng] **44-1466**
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- Gontarowski, P.P.**
Calculation of the temperature field and stress-strain state of a rotor of a cryo-turbogenerator during cooling and operation [1990, p.61-69, rus] **44-4351**
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Behaviour of two kinds of ground freezing: laboratory tests and case histories [1989, p.577-578, eng] **44-942**
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Martian dust particles as condensation nuclei: a preliminary assessment of mineralogical factors [1986, p.56-74, eng] **44-2396**
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- Goodman, J.**
Antarctic stratospheric ice crystals [1989, p.16,449-16,457, eng] **44-1624**
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- Resolution of a two-dimensional Stefan problem using a finite difference method [1990, p.143-150, fre] **44-3656**
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- Gorbulov, B.Z.**
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- Comparison of theory and experiment in formation of ice crystals on a nonuniform surface [1990, p.733-738, eng] **44-3597**
- Effect of surface characteristics of metal oxides on heterogeneous nucleation. Formation of a stable phase from vapor: role of the adsorbed film [1989, p.198-202, eng] **44-3260**
- Effect of surface characteristics of metal oxides on heterogeneous nucleation. Model of formation of ice from supercooled water [1989, p.202-206, eng] **44-3261**
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- Ice-forming activity of ultrasmall silver iodide particles [1989, p.571-574, rus] **44-2569**
- Influence of surface characteristics of metal oxides on heterogeneous nucleation. Model of ice formation from supercooled water [1989, p.231-236, rus] **44-2568**
- Influence of the surface characteristics of metal oxides on heterogeneous nucleation. Formation of a stable phase from vapor. Role of the adsorption film [1989, p.225-230, rus] **44-2567**
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Negative phenomena associated with the construction of linear structures in northern West Siberia [1990, p.31-37, rus] **44-4296**
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Conductivity by ionic defects in hydrogen-bonded chains [1989, p.1113-1115, eng] **44-3694**
- Gordon, A.L.**
Southern ocean and global climate [1988, p.39-46, eng] **44-4448**
- Southern ocean winter mixed layer [1990, p.11,655-11,672, eng] **44-4239**
- Gordon, D.F.**
Ray scattering from a collection of ice keels [1987, 16p., eng] **44-1054**
- Reflection and scattering of acoustic rays computed for parabolic ice keel models. Research report Oct. 86-Oct. 87 [1988, 21p., eng] **44-805**
- Gordon, J.E.**
Recent glacial history and climatic change, Bergsjord, Troms-Finnmark, Norway [1989, p.19-30, eng] **44-906**
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On optimal heating and cooling strategies for melting and freezing [1990, p.81-84, eng] **44-2134**
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AMERIEZ 1986: nutrient and phytoplankton biomass distributions in the ice-edge zone of the northwestern Weddell Sea [1989, p.182-183, eng] **44-27**
- Nutrient concentrations in antarctic pack ice during the austral winter [1990, p.35-40, eng] **44-3814**
- Gore, N.R.**
Arctic corrosion and its effects on the strength of icebreakers [1990, p.S1/S11, eng] **44-3481**
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Effects of the arctic haze as determined from airborne radiometric measurements during AGASP II [1989, p.225-244, eng] **44-2177**
- Gorelik, I.A.B.**
Calculating the inter-relationship of frozen rocks with oil field equipment in the outlet area of wells [1989, p.79-88, rus] **44-2156**
- Engineering-geocryological safeguarding of the building of structures. Collection of papers [1989, 135p., rus] **44-2144**
- Gorman, R.**
Field evaluation of TDC/Intera MARINE-VUE upgrades: final report [1989, 57p. + appendix, eng] **44-206**
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Geotechnical system concepts in practice for ecological safety of gas-industrial facilities [1989, p.39-49, rus] **44-4510**
- Gorodnitskii, A.M.**
Limiting state of metals at cryogenic temperatures under impulse magnetic exposure [1990, p.233-237, rus] **44-4389**
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Extension of a density current model of katabatic winds to include the effects of blowing snow and sublimation [1989, p.367-394, eng] **44-2433**
- Investigation of frazil and anchor ice and their role in ice cover development. Final report 15 Oct.-14 Mar. 89 [1989, 430p., eng] **44-718**
- Models for permafrost thickness variation in response to change in paleoclimate [1990, p.191-198, eng] **44-3662**
- Salt fingering in subsea permafrost: some stability and energy considerations [1990, p.9575-9583, eng] **44-4334**
- Synopsis of analytic solutions for the temperature distribution in a river downstream from a dam or reservoir [1986, p.979-983, eng] **44-3410**
- Gosink, T.**
Atmospheric trace gases in the polar environment [1990, p.212-224, eng] **44-4091**
- Gosser, D.K., Jr.**
Model for electrochemical reactions in frozen solutions [1990, p.399-402, eng] **44-2947**
- Goswami, D.C.**
Snow cover, snowmelt and runoff in the Himalayan river basins. Final technical report [1988, 37p., eng] **44-624**
- Goto, A.**
Crystallographic structure of the natural air-hydrate in Greenland Dye-3 deep ice core [1990, p.17-24, eng] **44-2771**
- Electron density distribution in ice Ih determined by single-crystal x-ray diffractometry [1990, p.1412-1417, eng] **44-4270**

- Goto, A. (cont.)**
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Abrasion of concrete structures due to a movement of sea ice sheet [1988, p.297-305, jpn] 44-2697
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- Gotthardt, G.A.**
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- Gow, A.J.**
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- Grodzenskii, V.V.**
Complex ecological security of oil and gas development by efficient specialized sections for environmental protection [1989, p.173-177, rus] 44-4531
Making oil and gas development in arctic regions ecological [1990, p.19-22, rus] 44-2657
- Groenevelt, P.H.**
Application of time domain reflectometry to measure solute redistribution during soil freezing [1990, p.186-194, eng] 44-2982
Model for the clarification of perennial ground ice by thermally-induced regulation [1990, p.37-42, eng] 44-3641
- Groff, E.G.**
Unassisted cold starts to -29 C and steady-state tests of a direct-injection stratified-charge (DISC) engine operated on neat alcohols [1987, p.7.357-7.372, eng] 44-1195
- Gromov, I.U.V.**
Influence of sign-variable temperature on rock strength [1989, p.22-26, eng] 44-2755
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1400-year oxygen isotope history from the Ross Sea area, Antarctica [1990, p.94-98, eng] 44-4169
Dominion Range ice core, Queen Maud Mountains, Antarctica - general site and core characteristics with implications [1990, p.11-16, eng] 44-3716
Isotopic oxygen-18 results from blue-ice areas [1988, p.70, eng] 44-1700
Little Ice Age (neoglacal) paleoenvironmental conditions at Siple Station, Antarctica [1990, p.199-204, eng] 44-4193
US global ice core research program West Antarctica and beyond [1989, 32p., eng] 44-3738
- Gross, G.W.**
Layered-capacitor method for dielectric bridge measurements: algorithms for inversion and parameter fitting, documentation, verification, data analysis. Final report, 15 Nov. 83-30 Oct. 86 [1987, 178p., eng] 44-1272

- Gross, M.F.**
Ground-penetrating radar study of active layer thicknesses in areas of moist sedge and wet sedge tundra near Bethel, Alaska, U.S.A. [1990, p.175-182, eng] 44-4050
- Grossi, S.M.**
Response of a sea ice microalgal community to a gradient in under-ice irradiance [1985, 324p., eng] 44-1479
- Grossman, A.W.**
Radar reflectivity of Titan [1990, p.975-980, eng] 44-4145
- Grosso, S.A.**
Pleistocene ice wedge casts at 34S eastern Andes piedmont, south-west of South America [1989, p.125-136, eng] 44-2618
- Grosval'd, M.G.**
Glaciation interaction with the ocean: paleogeographic aspects [1988, 184p., rus] 44-275
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Airplane instrument to detect ice particles [1989, p.545-551, eng] 44-112
- Groters, D.J.**
Temporal and spatial variability of the marine atmospheric boundary layer and its effect on electromagnetic propagation in and around the Greenland Sea marginal ice zone [1988, 11p., eng] 44-1446
- Grotenthaler, W.**
Contributions to the early Holocene deglaciation history in central West Greenland [1989, p.22-41, eng] 44-1001
- Grove, G.H.**
Freeze-thaw testing of coarse aggregate in concrete: procedures used by Michigan Department of Transportation and other agencies [1989, p.57-66, eng] 44-132
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Digital low-frequency, surface-profiling ice-radar system [1990, p.112-121, eng] 44-3730
- Groves, J.**
New Alaskan road beats drainage problems [1989, p.88-89, eng] 44-1513
- Groves, J.E.**
Statistical description of the summertime ice edge in the Chukchi Sea. Final report, Task 2 [1987, 208p., eng] 44-1439
- Grudzinski, B.V.**
Low-temperature structural durability of various welded joints of 12Kh18N10T steel and AMg5 alloy [1990, p.125-126, rus] 44-4364
- Grulina, L.K.**
Nitrogen in the arctic ecosystems [1990, p.135-140, eng] 44-4112
- Gruzov, A.V.**
Engineering geological mapping [1989, 118p., rus] 44-3706
- Grybeck, D.**
Significant metalliferous lode deposits and placer districts of Alaska [1987, 104p. + appends., eng] 44-533
- Grzes, M.**
Ice jams and ice jam floods in the lower Vistula [1985, p.499-525, pol] 44-2938
- Grzes, M.**
Inner structures and surface morphology of ice jams [1989, p.66-75, eng] 44-2024
- Grzes, M.**
Some problems of the ice cover formation in the Wloclawek reservoir [1989, p.76-92, eng] 44-2025
- Gu, X.**
Hovercraft trials on Song-Hua River [1989, p.69-75, eng] 44-4136
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Determining the elemental composition of hailstones [1989, p.29-44, rus] 44-810
- Gubler, H.**
Comparison of three models of avalanche dynamics [1989, p.82-89, eng] 44-553
- Gubler, H.**
Model of initial failure in slab-avalanche release [1989, p.90-95, eng] 44-554
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Solidification in developing pipe flows [1988, p.225-232, eng] 44-1413
- Gudkovich, Z.M.**
Urgent problems in studying sea ice in the Arctic Ocean [1990, p.101-106, eng] 44-4074
- Gudmandsen, P.**
Active microwave observations of sea ice and iceberg [1986, p.13-24, eng] 44-1237
- Gudmandsen, P.**
Microwave brightness temperatures of the Greenland Ice Sheet [1989, p.277-287, eng] 44-2601
- Guenther, A.**
Atmospheric dispersion in the Arctic: winter-time boundary-layer measurements [1989, p.339-366, eng] 44-2432
- Guest, P.S.**
MIZEX (marginal ice zone experiment) 87 meteorology atlas. Technical report 1 Oct. 1986-31 Sep. 1987 [1988, 146p., eng] 44-710
- Guidelines for weather, snowpack and avalanche observations**
Guidelines for weather, snowpack and avalanche observations [1989, 49p., eng] 44-2082
- Guillermo, E.C.**
Design of AIDA seaport for the De Long Mountain Regional Transportation System at the Chukchi Sea, Alaska [1988, p.633-660, eng] 44-1180
- Guliev, V.P.**
Specific energy for the destruction of 10Kh2GM steels at low temperatures [1990, p.78-81, rus] 44-4354
- Gullicks, H.A.**
Cold-climate nitrifying biofilters: design and operation considerations [1990, p.50-57, eng] 44-2833
- Gunaratna, P.P.**
Simulation of hydraulics and thermal-ice regimes in river networks [1990, 274p., eng] 44-4284
- Gundestrup, N.S.**
Little Ice Age (neoglacial) paleoenvironmental conditions at Siple Station, Antarctica [1990, p.199-204, eng] 44-4193
- Gundestrup, N.S.**
Resurvey of Byrd Station drill hole, Antarctica [1989, p.1-6, eng] 44-825
- Gundlach, E.R.**
Environmental impacts of oil and hazardous material spills with emphasis on winter conditions in the upper Great Lakes region. Final report [1986, 63p., eng] 44-1887
- Gundlach, E.R.**
Review and evaluation of contingency plans for oil and hazardous substances in the upper Great Lakes region. Final report [1986, 273p., eng] 44-838
- Gunn, J.T.**
Oceanographic observations in the Scotia Sea marginal ice zone, June-Aug. 1988 [1989, 70p., eng] 44-618
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On the experimental determination of the spectral reflection properties of the snow cover in the solar wavelength region 400-1000 nm [1990, p.50-54, ger] 44-3775
- Guo, D.X.**
Function of geologic structure in the formation of permafrost conditions in Huola River basin, North Da Hinggan Ling [1989, p.215-222, chi] 44-2416
- Guo, D.X.**
Study on seasonally thawed layer in the basin of Huola River in northern Da Hinggan Ling [1989, p.203-214, chi] 44-2415
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Study of regularity and influence factors of displacement of frozen soil wall in freeze sinking [1989, p.20-33, chi] 44-647
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Longwave radiation budget at the surface from satellite data: development and validation [1989, p.291-294, eng] 44-4043
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Influence of heavy fractions on low-temperature properties of diesel fuels [1989, p.39-41, eng] 44-1680
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Formation of frozen-ground conditions in the foundations of buildings and oil field structures during operations [1989, p.72-79, rus] 44-2155
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Management of sediment transported by glacial melt-water streams and its significance for the estimation of sediment yield [1989, p.1-5, eng] 44-537
- Gurtovaia, E.E.**
Paleoclimates and glaciation during the Pleistocene [1989, 247p., rus] 44-1911
- Gurtsev, V.I.**
Effects of forests on snow reserves and snow melting in the middle taiga of the European North [1986, p.8-13, eng] 44-1731
- Gusev, E.M.**
Infiltration of water into soil during melting of snow [1990, p.108-120, eng] 44-3247
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Test methods for crack-resistance of structural steels under dynamic load [1990, p.28-32, rus] 44-4344
- Guseva, E.I.**
Problems of brittle strength in the design of ice-going ships [1989, p.15-18, rus] 44-3214
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Mathematical model of heat and mass transfer in stratified snow [1989, p.69-72, rus] 44-1574
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Effect of anti-hail efforts on the polluted atmosphere and of deposits by hail modification products [1989, p.145-151, rus] 44-822
- Guslitzer, B.I.**
Age of relief-forming moraines in the lower Pechora basin and the boundary of the last ice sheet [1985, p.97-107, rus] 44-482
- Gustafson, K.**
Icing risks on roads built with slag [1988, 75p., swe] 44-623
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Modelling of local climate for prediction of road slipperiness [1989, p.147-164, eng] 44-980
- Guy, Y.**
Performance of trucks braking on ice. Final report 25 Feb.-15 June 1987 [1987, 201p., eng] 44-1096
- Gvozdk, V.V.**
Effect of phase conversion on viscosity of metastable steel for cryogenic purposes [1990, p.243-247, rus] 44-4391
- Haas, R.**
Extending McLeod's PVN concept to the temperature susceptibility characterization of asphalt mixes [1988, p.178-192, eng] 44-2842
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Definition of research needs to address airport pavement distress in cold regions [1989, 142p., eng] 44-1722
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Environmental considerations [1990, p.83-91, eng] 44-4268
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Improving snow roads and airstrips in Antarctica [1989, 18p., eng] 44-1
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Factors affecting the low temperature pumpability of used engine oils [1987, p.7.298-7.306, eng] 44-1194
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Simulations of the general circulation of the Martian atmosphere 1. Polar processes [1990, p.1447-1473, eng] 44-2292
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Sublimation and transport of water from the north residual polar cap on Mars [1990, p.1423-1437, eng] 44-2290
- Haberle, R.M.**
Year-to-year instability of the Mars south polar cap [1990, p.1359-1365, eng] 44-2287
- Hachey, J.**
Ice scour models [1990, p.179-188, eng] 44-2081
- Hachmeister, L.E.**
Current, CTD, and pressure measurements in possible dispersal regions of the Chukchi Sea [1984, p.255-333, eng] 44-622
- Hachmeister, L.E.**
Effects of the West Dock Causeway on nearshore oceanographic processes in the vicinity of Prudhoe Bay, Alaska [1989, 50p., eng] 44-3772
- Hachmeister, L.E.**
Nearshore and coastal circulation in the northeastern Chukchi Sea. Final report [1985, p.1-104, eng] 44-1720
- Hackett, P.**
IMD ice tank personnel safety alarm system [1989, 18p. + appends., eng] 44-3195
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Selection of an optimum propeller for commercial ships. Final report [1988, 77p., eng] 44-1056
- Haerberlen, U.**
2H-nuclear magnetic resonance study of the host lattice dynamics in the clathrate of Dianin's compound. Concerted rotational jumps of six hydroxyl groups [1990, p.2178-2186, eng] 44-3027
- Haerberli, W.**
Assessing risks from glacier hazards in high mountain regions: some experiences in the Swiss Alps [1989, p.96-102, eng] 44-555
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Climatic change in a high-altitude alpine area suggested by the isotopic composition of cold basal glacier ice [1990, p.168-171, eng] 44-4186
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Glacier and permafrost signals of 20th-century warming [1990, p.99-101, eng] 44-4170
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Pilot analyses of permafrost cores from the active rock glacier Murtel I, Piz Corvatsch, eastern Swiss Alps—a working report [1990, 38p., eng] 44-4131
- Haerberli, W.**
World glacier inventory: status 1988 [1989, Var. p., eng] 44-74
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Designing a new science facility for McMurdo Station [1988, p.4-6, eng] 44-1313
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Trace metal pollution from a municipal waste disposal site at Pangnirtung, Northwest Territories [1989, p.57-61, eng] 44-491
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Glaciers and climate in Svalbard: statistical analysis and reconstruction of the Brøggerbreen mass balance for the last 77 years [1990, p.148-152, eng] 44-4182
- Hagen, J.O.**
Long-term glacier mass-balance investigations in Svalbard, 1950-88 [1990, p.102-106, eng] 44-4171
- Haines, P.A.**
Collection of non-conus aircraft icing data along with an identification of the geographical areas of potential severe icing and a study of a method of remote determining atmospheric icing data [1988, 120p., eng] 44-2741
- Haines, T.B.**
Top it off and hold the ice [1990, p.43-44, eng] 44-3584
- Hakala, R.**
Oil pollution problem in the Baltic marine environment [1989, p.307-327, eng] 44-3801
- Hakansson, B.**
Ground truth measurements for SAR data interpretation at study area III SMHI [1988, p.85-101, eng] 44-1428
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Ice reconnaissance and forecasts in Storfjorden, Svalbard [1988, 20p., eng] 44-853
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Sea ice concentration in the Bothnian Sea obtained from visual satellite data [1989, p.1358-1369, eng] 44-4435
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Variation of ice properties in an ice area of 1 x 2 km in the Gulf of Bothnia, March 1988 [1989, p.1348-1357, eng] 44-4434
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Models and their applications to polar oceanography [1990, p.335-384, eng] 44-3981
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Effects of the West Dock Causeway on nearshore oceanographic processes in the vicinity of Prudhoe Bay, Alaska [1989, 50p., eng] 44-3772
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Development and field use of a snow collector for acid precipitation studies [1988, 69p., eng] 44-1051

- Hall, D.K.**
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Failure maps for ice [1988, p.45-55, eng] 44-1128
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Measurements of the electrode effect over flat, snow-covered ground [1989, p.521-527, eng] 44-1239
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Role of convective motion during dendrite growth: experiments under variable gravity (revised) [1987, 126p, eng] 44-1293
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Microwave measurements of ice and snow [1988, p.69-83, eng] 44-1427
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Surface energy balance and ground heat flux in organic permafrost terrain under variable moisture conditions [1990, p.223-229, eng] 44-3666
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Environmental degradation by microorganisms at low temperatures: wastewater treatment [1987, 36p., eng] 44-801
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Ice warning systems cut the cost of winter maintenance [1986, p.8-9, eng] 44-2061
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Neutrino astronomy [1989, p.39-51, eng] 44-2071
- Hamabe, K.**
Strength of concrete using dealkalized antifreezing admixtures under field environment in winter [1989, p.618-623, jpn] 44-2922
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Meltwater percolation through snow cover, Pt.1 [1988, p.89-101, jpn] 44-734
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Study on use of urban erosion control and space [1989, p.271-276, jpn] 44-3590
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Some considerations on ice control in a harbor [1988, p.322-329, jpn] 44-2700
Vertical ice forces on pile structures due to changes in water level [1985, p.150-155, jpn] 44-2307
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Structure of poly(vinyl alcohol) hydrogel prepared by repeated freezing and melting [1989, p.762-765, eng] 44-443
- Hameedi, M.J.**
Effects of the West Dock Causeway on nearshore oceanographic processes in the vicinity of Prudhoe Bay, Alaska [1989, 50p., eng] 44-3772
- Hamill, P.**
Aerosol nucleation in the winter arctic and antarctic stratospheres [1990, p.417-420, eng] 44-3423
Heterogeneous physicochemistry of the polar ozone hole [1989, p.16,493-16,510, eng] 44-1626
Incorporation of stratospheric acids into water ice [1990, p.425-428, eng] 44-3425
- Hamilton, T.D.**
Glacial geology of the Brooks Range [1989, p.23-26, eng] 44-428
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Hull structure of the icebreaker "Oden" [1989, p.1468-1485, eng] 44-4443
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Differential equation connected with the dendritic growth of crystals [1989, p.43-75, eng] 44-2395
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Bacteria at the heart of a good snowfall [1990, p.38, eng] 44-2788
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Time dependent response of frozen soils subject to triaxial stress [1989, 5 refs., eng] 44-934
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Climatic information from the Chongce Ice Cap, West Kunlun, China [1990, p.205-207, eng] 44-4194
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Monte Carlo study of melting of a model bulk ice [1989, 89p., eng] 44-4283
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Prediction trial of snowslip danger slopes by the personal computer [1985, p.231-233, jpn] 44-2320
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Chemical precipitation in highly loaded stabilization ponds in cold climates: Scandinavian experiences [1987, p.71-77, eng] 44-3311
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Methods to reduce ice accumulation on miter gate recess walls [1989, 5p., eng] 44-3793
Reduced winter leakage in gates with J-seals [1989, 3p., eng] 44-3794
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Laminar flow heat transfer in a horizontal tube with internal freezing (effects of flow acceleration and natural convection) [1988, p.3506-3511, jpn] 44-1279
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Repair of bridge deck structures in cold weather. Final report [1987, 219p., eng] 44-676
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Ice data management systems [1989, 154p. + append., eng] 44-1488
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Effect of hydrostatic pressure and salinity on the stability of gas hydrates [1990, p.2652-2657, eng] 44-4137
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Heat capacity and glass transition of ethylene oxide clathrate hydrate [1990, p.45-58, eng] 44-2774
Nature of the transformations of ice I and low-density amorphous ice to high-density amorphous ice [1989, p.7187-7192, eng] 44-1936
Strength of frozen sand containing tetrahydrofuran hydrate [1989, p.479-483, eng] 44-123
- Haniyu, S.**
Countermeasure against low temperature in telecommunication station in winter [1989, p.551-556, jpn] 44-2914
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Artificial and natural icing tests of the EH-60A Quick Fix helicopter. Final report 24 Feb.-20 Mar. 1988 [1988, 86p., eng] 44-1060
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Behavior of frozen and unfrozen sands in triaxial testing [1988, p.57-64, eng] 44-912
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Thaw settlement around a building on warm ice-rich permafrost [1990, p.419-424, eng] 44-3690
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Clast ploughing, lodgement and glacier sliding over a soft glacier bed [1989, p.201-207, eng] 44-944
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- Hansen, B.L.**
Resurvey of Byrd Station drill hole, Antarctica [1989, p.1-6, eng] 44-825
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Measurements of ice thickness on glaciers at Isortoarsuup tasia, southern West Greenland and Pákitsoq, central West Greenland [1989, p.59-63, eng] 44-4124
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Design and performance experience of foundations stabilized with thermosyphons [1990, p.365-370, eng] 44-3683
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Method for quick calculation of temperature differences in concrete members [1985, p.231-235, eng] 44-1986
- Hansman, R.J., Jr.**
Experimental and theoretical study of the ice accretion process during artificial and natural icing conditions [1988, 136p., eng] 44-1246
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Recent glacial history and climatic change, Bergsjord, Troms-Finnmark, Norway [1989, p.19-30, eng] 44-906
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Thermal response of a small ice cap to climatic forcing [1990, p.49-56, eng] 44-3721
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Soil freezing and thawing simulation with the SHAW model [1990, p.77-86, eng] 44-2969
- Hanson, C.S.**
World Data Center-A for Glaciology/National Snow and Ice Data Center antarctic-related activities for 1987 [1988, p.218-219, eng] 44-2141
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HCl/H₂O solid-phase vapor pressures and HCl solubility in ice [1990, p.4700-4705, eng] 44-3946
Solubility and equilibrium vapor pressures of HCl dissolved in polar stratospheric cloud materials: ice and the trihydrate of nitric acid [1988, p.1507-1510, eng] 44-480
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- Hanzlick, D.J.**
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- Hara, F.**
On the design of bridge for river ice sheet (1) [1986, p.185-191, jpn] 44-2462
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On the design of bridge for river ice sheet (4) [1989, p.394-403, jpn] 44-2905
Study on bridge design for frozen rivers, Pt.2 [1987, p.318-321, jpn] 44-2545
- Harbor, J.M.**
Early discoverers XXXVI: W.J. McGee on glacial erosion laws and the development of glacial valleys [1989, p.419-425, eng] 44-1904
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Low temperature benefits of polymer modified asphalts [1988, p.198-216, eng] 44-2839
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- Hardwick, C.D.**
Greenland ice cap aeromagnetic survey 1987: completion of the survey over the southern end of the Greenland ice cap [1988, p.70-72, eng] 44-486
- Hare, D.E.**
Raman spectroscopic study of bulk water supercooled to -33°C [1990, p.25-33, eng] 44-3966
- Haren, J.**
Isotopic, chemical and crystallographic characteristics of first-year sea ice from Brøyd Bay (Princess Ragnhild Coast - Antarctica) [1989, p.261-268, eng] 44-64
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Distribution of chlorinated hydrocarbon pesticides and PCBs in the Arctic Ocean [1989, 224p., eng] 44-3804
Toxaphene and other organochlorines in Arctic Ocean fauna: evidence for atmospheric delivery [1989, p.307-313, eng] 44-1933
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Measurement of the riming amount on snowflakes [1989, p.355-366, eng] 44-1622
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Fractography of ice [1989, p.1193-1194, eng] 44-1511
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Chukchi Sea coastal studies: coastal geomorphology, environmental sensitivity, and persistence of spilled oil [1989, p.127-633, eng] 44-879
Review of beach nourishment from ice transport of shoreface materials, Beaufort Sea, Alaska [1990, p.439-469, eng] 44-3395
- Harrington, M.G.**
Environmental data collection aboard the USCGC Polar Sea, 1985, Vol.2, maps and ice flow cross section. Final report June 85-Nov. 86 [1987, 40p., eng] 44-886
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Side scan sonar and sub-bottom profiling survey of the Chukchi Shelf and Barrow Sea Valley [1986, 68p., eng] 44-705
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Ice crystallization developments for the butane direct-contact process [1987, p.107-126, eng] 44-1787
- Harris, C.**
Micromorphology and microfabrics of sorted circles, Front Range, Colorado, U.S.A. [1990, p.89-94, eng] 44-3648
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Road log from Chandalar Shelf (mile 237.1) to Prudhoe Bay (mile 414) [1989, p.101-131, eng] 44-430
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"Himuro project '88" Funagata total snow utility system: retarding culture by snow (1988, p. 541-545, jpn) 44-2724
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Arctic data compilation and appraisal. Vol.1. Beaufort Sea: physical geography—temperature, salinity, currents and water levels [1982, 276 p., eng] 44-1436
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Biological instrumentation for underice studies in the Arctic [1988, p.49-53, eng] 44-3603
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Arctic seas: climatology, oceanography, geology, and biology [1989, 888p., eng] 44-981
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Arctic hazes in summer over Greenland and the North American Arctic. III: A contribution from the natural burning of carbonaceous materials and pyrites [1989, p.161-167, eng] **44-2173**
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Ice Island field station—new features of Canadian Polar Margin [1989, p.833, 838-839, eng] **44-3081**
- Hochstein, A.B.**
Influence of vessel movements on stability of restricted channels [1989, p.444-465, eng] **44-1770**
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Digital low-frequency, surface-profiling ice-radar system [1990, p.112-121, eng] **44-3730**
Use of a new high-speed digital data acquisition system in airborne ice-sounding [1989, p.561-567, eng] **44-410**
- Hodgson, D.A.**
Were erratics moved by glaciers or icebergs to Prince Patrick Island, western Arctic Archipelago, Northwest Territories [1990, p.67-70, eng] **44-4493**
- Hodgson, G.J.**
Dynamics of iceberg grounding and scouring (DIGS) experiment and repetitive mapping of the eastern Canadian continental shelf. Vol.1: The field experiment. Vol.2: Maps and charts [1988, 316p. + maps, eng] **44-229**
- Hoerber, H.**
Measuring the length of an ice floe trajectory [1989, p.347-349, eng] **44-764**
One-year temperature records in the atmospheric surface layer above sea ice and open water [1989, p.293-297, eng] **44-412**
- Hoff, G.C.**
Evaluation of ice abrasion of high-strength lightweight concretes for arctic applications [1989, p.583-590, eng] **44-1118**
Resistance of concrete to ice abrasion—a review [1988, p.427-455, eng] **44-1740**
- Hoff, R.M.**
Airborne and lidar measurements of aerosol and cloud particles in the troposphere over Alert, Canada in April 1986 [1989, p.187-211, eng] **44-2175**
- Hoffert, M.I.**
Climatic change and ocean bottom water formation: are we missing something [1989, 27p., eng] **44-1067**
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Experimental results on frost as a first wall shielding concept for inertial confinement fusion. Final report [1990, 100p., eng] **44-3771**
- Hoffmann, H.E.**
Standardized ice accretion thickness as a function of cloud physics parameters [1988, 64p., eng] **44-802**
- Hoffmann, L.**
First results of ice force measurements with TIF-panels at Norströmsgrund lighthouse [1989, p.1428-1439, eng] **44-4440**
- Hofle, H.C.**
Report on a reconnaissance of the glaciers of Terra Nova Bay area [1989, p.299-319, eng] **44-3051**
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Comparison of stratospheric clouds in the Antarctic and the Arctic [1989, p.1429-1432, eng] **44-2589**
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Redistribution of soil water and solutes in fine and coarse textured soils after freezing [1990, p.263-270, eng] **44-2993**
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Antarctic ice sheet brightness temperature variations [1990, p.217-223, eng] **44-3854**
Application of aerosol physics to snow research [1989, p.201-207, eng] **44-4013**
Chemical migration in snowpack [1989, p.282-286, eng] **44-4028**
- Hoge, F.E.**
Airborne discrimination between ice and water: application to the laser measurement of chlorophyll-in-water in a marginal ice zone [1989, p.67-76, eng] **44-3904**
- Hoham, R.W.**
Recent discoveries of snow algae in upstate New York and Quebec Province and preliminary reports on related snow chemistry [1989, p.196-200, eng] **44-4012**
Snow microorganisms and their interaction with the environment [1989, p.31-35, eng] **44-501**
- Hojo, K.**
Ice forces acting on water intake towers [1989, p.421-431, jpn] **44-2909**
- Hokkari, K.**
View of power control for road heating system [1988, p.366-371, jpn] **44-2705**
- Holden, J.T.**
Ground freezing 88. Volume 2 [1989, p.407-593, eng] **44-915**
Mathematical model of frost heave in granular materials [1989, p.569-570, eng] **44-939**
- Holder, G.D.**
Experimental study of crystallization and crystal growth of methane hydrates from melting ice [1990, p.103-116, eng] **44-2776**
- Holdsworth, G.**
Analysis of a 290-year net accumulation time series from Mt. Logan, Yukon [1989, p.71-79, eng] **44-174**
Origin of non-sea-salt sulphate in the Mount Logan ice core [1990, p.245-248, eng] **44-1849**
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Airborne measurement of sea ice thickness using electromagnetic induction during LIMEX 89 [1990, p.309-315, eng] **44-2240**
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Development of an airborne sea ice thickness measurement system and field test results [1989, 47p., eng] **44-4265**
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- Holmlund, P.**
Cold surface layer on Storglaciären [1989, p.241-244, eng] **44-2624**
Geostatics in glaciology: implications of a study of Scharffenbergeten, Dronning Maud Land, East Antarctica [1990, p.107-110, eng] **44-4172**
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Mapping snow cover with satellite imagery: comparison of results from three sensor systems [1989, p.59-68, eng] **44-505**
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Thread bar pile for permafrost [1990, p.341-348, eng] **44-3680**
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Global approach to image texture analysis [1990, 278p., eng] **44-3263**
Rough transform technique for extracting lead features from sea ice imagery [1989, 4p., eng] **44-1523**
- Hondoh, T.**
Crystallographic structure of the natural air-hydrate in Greenland Dye-3 deep ice core [1990, p.17-24, eng] **44-2771**
Dislocation mobility for non-basal glide in ice measured by *in situ* X-ray topography [1990, p.89-102, eng] **44-4495**
Electron density distribution in ice Ih determined by single-crystal x-ray diffractometry [1990, p.1412-1417, eng] **44-4270**
Utilization of clathrate hydrates for storage of gas [1988, p.562-566, jpn] **44-2728**
X-ray diffraction in glaciology [1989, p.184-194, jpn] **44-1043**
- Hong, T.**
Snow as water resource [1988, p.573-578, jpn] **44-2730**
- Hongoh, M.**
Frost formation and defrosting of tube-array evaporators in a fluidized bed and an impinging jet [1988, p.973-980, eng] **44-1376**
- Honma, F.**
Problems on freezing of port basins at northern Hokkaido facing the Japan Sea [1985, p.95-102, jpn] **44-2299**
- Honma, M.**
Method for the evaluation of soundness and remaining life of structures [1985, p.208-212, jpn] **44-2317**
- Hood, P.**
Greenland ice cap aeromagnetic survey 1987: completion of the survey over the southern end of the Greenland ice cap [1988, p.70-72, eng] **44-486**
- Hoogendoorn, N.C.**
Mass-balance gradients and climatic change [1989, p.399-405, eng] **44-1902**
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Austdalsbreen, Norway: expected reaction to a 40 m increase in water level in the lake into which the glacier calves [1989, p.113-126, eng] **44-3095**
Englacial and subglacial hydrology: a qualitative review [1989, p.221-233, eng] **44-1263**
Short-term variations in strain and surface tilt on Storglaciären, Kebnekaise, northern Sweden [1989, p.201-208, eng] **44-1546**
Subglacial water pressures and the shape of subglacial conduits [1990, p.67-71, eng] **44-3723**
Three year record of seasonal variations in surface velocity, Storglaciären, Sweden [1989, p.235-247, eng] **44-1551**
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Five-stage snow removal plan [1989, p.12-13, eng] **44-2757**
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- Hopkins, M.A.**
Simulation of the ice ridging process [1990, p.152-156, eng] **44-3840**
- Hopkins, R.T., Jr.**
Reconnaissance geology and exploration geochemistry of King Cove, Alaska Peninsula [1989, 23p., eng] **44-3763**
- Horibe, A.**
Ice-accretion characteristics along a circular cylinder immersed in cold air stream with seawater spray [1988, p.981-988, eng] **44-1377**
- Horiguchi, K.**
Relationship between confined pressure of a sample and ice intrusion temperature [1989, p.117-120, jpn] **44-3131**
Soil freezing by a step temperature drop in the open system under overburden pressure [1989, p.163-171, eng] **44-3099**
- Horikawa, R.**
Performance tests on 100-PS-model small-scale snowplows [1989, p.201-206, jpn] **44-3526**
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UC-Tyre grip adhesive [1988, p.239-244, jpn] **44-2691**
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Evaluation of state-of-the-art drilling platform ice accretion models [1988, p.131-136, eng] **44-3319**
Icing hazards on supply vessels and stand-by boats [1986, 87p., eng] **44-1277**
Time-dependent numerical model for sea spray icing on marine structures [1988, p.571-579, eng] **44-1174**
Use of ship icing models for forecasting icing rates on sea-going ships [1989, p.1454-1467, eng] **44-4442**
- Horn, D.E.**
Advances in design and construction of slope protection for gravel islands, Beaufort Sea, Alaska [1988, p.431-439, eng] **44-1160**
- Hornain, H.**
Freeze-thaw tests of concrete in seawater [1989, p.360-366, eng] **44-1844**
- Horne, T.A.**
Lake-effect snowshowers [1989, p.91, eng] **44-1818**
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Seasonal variation of marine environmental conditions under fast ice in Ongul Strait, Antarctica [1985, p.42-43, jpn] **44-59**
Temporal variability of primary production and energy flow in arctic sea ice area (PREFLA Project) [1990, p.102-112, eng] **44-3743**
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Study for scale and shape of melting snow-hole [1989, p.283-288, jpn] **44-2891**
- Hov, O.**
Light hydrocarbons in the Norwegian Arctic [1989, p.2471-2482, eng] **44-2260**
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Computer simulation of two-dimensional frost heaving in soils [1989, 79p., eng] **44-2806**
- Hovenac, E.A.**
Droplet sizing instrumentation used for icing research: operation, calibration, and accuracy. Final report [1989, 53p., eng] **44-2808**

- Hovenac, E.A. (cont.)**
Operating envelopes of particle sizing instrumentation used for icing research. Final report [1987, 16p., eng] 44-1099
Performance of the forward scattering spectrometer probe in NASA's icing research tunnel [1988, 11p., eng] 44-953
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Some recent problems with air-entrained concrete [1989, p.67-72, eng] 44-133
- How fleets prepare**
How fleets prepare [1988, p.85-89, eng] 44-757
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Determination of the crystal structure of ice XI [1989, p.4450-4453, eng] 44-3619
Electrical conductivity of KOH-doped ice from 70 to 250 K [1989, p.963-965, eng] 44-1087
- Howell, D.G.**
Thermal maturity and organic geochemistry of the Kandik basin region, east-central Alaska [1989, 41p., eng] 44-3764
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Automatic monitoring of short duration snowmelt events in a Nova Scotia headwater stream [1989, p.145-153, eng] 44-2434
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Hydrogen sulfide on ice: evidence from telescopic and laboratory infrared spectra [1989, p.454-457, eng] 44-42
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Some remarks on the regularization of supercooled one-phase Stefan problems in one dimension [1990, p.153-168, eng] 44-3309
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Ship icebreaking resistance with flooding water effect [1990, p.127-134, eng] 44-2215
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Relationship between the development of depth hoar and avalanche release in the Tian Shan Mountains, China [1990, p.37-40, eng] 44-3719
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Recent glacier development and climatic changes in the Tianshan Mountains in China [1989, p.141-148, eng] 44-3166
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Stochastic meltwater runoff model of Heigou Glacier No.8 in the southern slope of Mt. Bogda [1989, p.279-286, chj] 44-2423
- Hu, Z.J.**
Numerical simulation of microphysical processes in cumulonimbus—Pt. 1: microphysical model [1988, p.471-489, eng] 44-527
Numerical simulation of microphysical processes in cumulonimbus—Pt. 2: case studies of shower, hailstorm and torrential rain [1989, p.185-199, eng] 44-528
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Why does ice grow faster from salt water than from fresh water [1987, p.99-106, eng] 44-1786
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Studies on the BHQ ice core from the Law Dome, Antarctica [1990, p.20-26, eng] 44-4550
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Flow of glaciers in China [1989, p.88-104, chj] 44-3886
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Introduction to the glaciers in China [1989, 231p. + photographs + maps, chj] 44-3881
Numerical classification of glaciers in China by means of glaciological indices at the equilibrium line [1989, p.103-111, eng] 44-178
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- Huang, Q.**
Model for electrochemical reactions in frozen solutions [1990, p.399-402, eng] 44-2947
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Proceedings, Vol.2: Offshore mechanics [1989, 767p., eng] 44-1112
- Huang, T.H.**
Proton mobility in liquid and frozen HClO₄·5.5H₂O: NMR and conductivity measurements [1988, p.6874-6876, eng] 44-3618
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Analytical models of local concrete-steel bond at low temperature [1989, p.159-171, eng] 44-1760
- Huang, Y.Z.**
Study on seasonally thawed layer in the basin of Huola River in northern Da Hinggan Ling [1989, p.203-214, chj] 44-2415
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Mechanical and metallurgical approach to the characteristic brittle-to-ductile-transition temperature [1990, p.185-194, eng] 44-3954
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Basal ice formation and deformation: a review [1989, p.529-558, eng] 44-2094
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- Humphrey, N.**
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CBS/ICE: a computer program for simulation of ice storage systems [1989, p.1206-1213, eng] 44-446
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Perturbation solution of the flood problem. Discussion and author's reply [1988, p.346-349, eng] 44-612
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Sediment transport by ice gouging: application of model experiments to the arctic continental shelf [1990, p.109-111, eng] 44-3830
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- Huybrechts, P.**
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- Ice management: auxiliary propulsion and maneuvering system**
Ice management: auxiliary propulsion and maneuvering system (1988, p.10-17, eng) 44-1687
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Liquid water content and droplet size calibration of the NASA Lewis Icing Research Tunnel (1989, 28p., eng) 44-2812
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- Ikawa, S.**
Effect of temperature on the hydrogen bond distribution in water as studied by infrared spectra (1989, p.184-188, eng) 44-3170
- Ikeda, J.I.**
Ship-ice collision analysis considering the elastic deflection of hull girder (1984, p.E/1-E/13, eng) 44-3454
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Ice-edge upwelling off the Newfoundland coast during LIMEX (1989, p.658-681, eng) 44-2045
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Model of sea ice and the upper ocean mixed layer off Labrador (1990, p.11,603-11,612, eng) 44-4235
Review of sea ice and ocean modeling relevant to the Labrador and Newfoundland shelves (1989, p.535-540, eng) 44-407
Snow cover detected by diurnal warming of sea ice/snow surface off Labrador in NOAA imagery (1989, p.552-560, eng) 44-409
- Ikeda, S.**
Temperature measurements of first-year sea ice in the sea of Okhotsk using an airborne infrared radiometer (1989, p.111-116, eng) 44-1808
- Ikegami, M.**
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- Ikemori, M.**
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- Iken, A.**
Age of Cray Ice Rise, Antarctica, determined from temperature-depth profiles (1990, p.13-16, eng) 44-4152
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- Ikenaga, Y.**
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- Ikeura, E.**
Melting of ice around a horizontal circular cylinder (1986, p.193-196, jpn) 44-1346
- Ilchuk, A.N.**
Long-term trends in studies of engineering constructions and ice interaction process (1990, p.114-119, eng) 44-4077
- Il'ichev, A.T.**
Propagation of long nonlinear waves in a ponderable fluid beneath an ice sheet (1989, p.73-79, eng) 44-1519
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Features of plastic deformation and failure of NT-50 cables (1990, p.191-197, rus) 44-4379
- Il'ina, E.A.**
Glacio-nival phenomena in the Polar Urals (1989, p.110-118, rus) 44-344
Snow-and-ice phenomena in the Polar Urals (1989, p.119-130, eng) 44-2440
Technogenic pollution of the snow cover on Svalbard (1989, p.17-21, eng) 44-1000
- Il'ina, T.A.**
Estimating the features of maximum spring runoff of unexplored rivers and intermittent streams in the southwest of the Ukraine and Moldavia (1988, p.19-33, rus) 44-2126
- Il'inskiy, V.V.**
Oil pollution and stability of arctic marine ecosystems (1990, p.236-237, eng) 44-4095
- Illangasekare, T.H.**
Modeling of meltwater infiltration in subfreezing snow (1990, p.1001-1012, eng) 44-4129
- Iives, L.**
New large ice model basin at Helsinki University of Technology (1987, 17p., eng) 44-1604
- Imabayashi, H.**
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- Imaev, V.S.**
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- Imai, M.**
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- Imai, T.**
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Estimated distribution of snow particles driven flying by MLU002 under levitated run (1989, p.215-219, eng) 44-3302
- Imano, Y.**
AC withstand voltage characteristics of snow covered insulator strings (1988, 49p., jpn) 44-1504
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- Inaba, H.**
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- Inada, H.**
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Foundation design to no sprinkling snow melting (1987, p.236-241, jpn) 44-2538
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To meteorology: how atmospheric pressure is controlled locally by volcanoes and surface frosts (1989, p.298-313, eng) 44-1953
- Ingram, R.D.**
Arctic USW torpedo G&C program (1989, p.152-153, eng) 44-3146
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On the salinity and the crystallographical structure of sea ice near river mouth (1988, p.197-211, jpn) 44-740
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- Inoue, A.**
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Ice forces acting on structures with inclined surfaces (1985, p.162-167, jpn) 44-2309
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- Inoue, M.**
China-Japan collaborative research program on antarctic biology at Great Wall Station on King George Island, South Shetland Islands in the summer of 1988/89 (1990, p.94-101, jpn) 44-3742

- Imoue, S.**
Durability of external wall coatings in cold region [1988, p.67-74, jpn] 44-2667
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- Imoue, Y.**
Anaerobic digestion of municipal sewage sludge in cold region [1986, p.343-347, jpn] 44-2478
- Inozemtsev, V.K.**
Compaction characteristics in thawing sandy soil under dynamic loads [1985, p.114-119, rus] 44-208
- International Conference on Icebreaking and Related Technologies, 3rd, Calgary, Canada, May 1984**
Ice tech '84 [1984, var.p., eng] 44-3449
- International Conference on Offshore Mechanics and Arctic Engineering, 8th, The Hague, Netherlands, Mar. 19-23, 1989**
Proceedings, Vol.2: Offshore mechanics [1989, 767p., eng] 44-1112
Proceedings, Vol.3: Materials technology [1989, 739p., eng] 44-1115
- International Conference on Offshore Mechanics and Arctic Engineering, 9th, Houston, TX, Feb. 18-23, 1990**
Proceedings, Vol.4 [1990, 339p., eng] 44-2199
Proceedings, Vol.5 [1990, 198p., eng] 44-2077
- International Conference on Port and Ocean Engineering under Arctic Conditions, 10th, Luleå, Sweden, June 12-16, 1989**
Proceedings, POAC 89, Vol.3 [1989, p.1188-1611, eng] 44-4425
- International Conference on Port and Ocean Engineering under Arctic Conditions, 9th, Fairbanks, AK, Aug. 17-22, 1987**
Port and ocean engineering under arctic conditions, Proceedings, Vol.2 [1988, 111p., eng] 44-860
- International Conference on Port and Ocean Engineering under Arctic Conditions, 9th, Fairbanks, Alaska, Aug. 17-21, 1987**
Port and ocean engineering under arctic conditions, Vol.3 [1988, 683p., eng] 44-1123
- International Conference on Ships and Marine Systems in Cold Regions, 4th, Calgary, Canada, March 1990**
Ice tech '90 [1990, var.p., eng] 44-3464
- International District Heating and Cooling Association**
Proceedings of the 80th annual conference, Virginia Beach, June 18-21, 1989 [1989, 516p., eng] 44-2000
- International Radiation Symposium, Lille, France, 1988**
Proceedings [1989, 653p., eng] 44-4040
- International RILEM Symposium on Winter Concreting, 3rd, Espoo, Finland, Nov. 25-27, 1985**
Proceedings [1985, 361p., + append., eng] 44-1971
- International Symposium: Frozen Soil Impacts on Agricultural, Range, and Forest Lands, Spokane, WA, March 21-22, 1990**
Proceedings [1990, 318p., eng] 44-2958
- International Symposium on Arctic Air Chemistry, 4th, Hurdal, Norway, Sep. 29-Oct. 2, 1987**
Proceedings [1989, 285p., eng] 44-2249
- International Symposium on Ground Freezing, 5th, Nottingham, England, July 26-28, 1988**
Ground freezing 88, Volume 2 [1989, p.407-593, eng] 44-915
- Investigation of Soviet capabilities in extended range arctic ice forecasting. Final report**
Investigation of Soviet capabilities in extended range arctic ice forecasting. Final report [1987, 140p., eng] 44-893
- Iofina, E.M.**
Means and methods of preventing the freezing of loose materials [1989, p.28-31, rus] 44-384
- Irgens, F.**
Simulation of snow-avalanche flow in run-out zones [1989, p.218-225, eng] 44-578
- Iribarne, J.V.**
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- Iribarren B., M.**
Soil electrical resistivity on King George Island, Antarctica [1990, p.95-100, spa] 44-3710
- Irwin, L.H.**
Instrumentation needs - SHRP's view [1989, p.20-22, eng] 44-1639
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- Isaac, G.A.**
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- Isaacs, J.**
Chukchi Sea coastal studies: coastal geomorphology, environmental sensitivity, and persistence of spilled oil [1989, p.127-633, eng] 44-879
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- Isaacson, M.**
Probabilistic evaluation of design iceberg collision [1990, p.85-101, eng] 44-4489
- Isachenko, T.I.**
Geobotanical regionalization of the non-chernozem zone of the European RSFSR [1989, 64p., rus] 44-3577
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Laboratory and field studies on the durability of thermoplastic road marking materials [1988, 51p., eng] 44-677
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- Isaeva, L.L.**
Last glaciation of Eurasia [1989, p.729-758, eng] 44-987
- Iseki, K.**
NOGAP B.6; Vol.1: Beaufort Sea current measurements, March-August 1987 [1988, 19p., eng] 44-1475
NOGAP B.6; Vol.3: Beaufort Sea current measurements, September 1987-March 1988 [1988, 37p., eng] 44-1510
- Ishibashi, N.**
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- Ishibashi, Y.**
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- Ishida, H.**
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- Ishida, K.**
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- Ishikawa, N.**
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- Ishikawa, S.**
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- Ishikura, A.**
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- Ishimoto, T.**
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- Ishioka, M.**
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- Ishizaka, Y.**
Arctic hazes in summer over Greenland and the North American Arctic: II: Nature and concentrations of accumulation-mode and giant particles [1989, p.149-159, eng] 44-2172
- Ishizaki, T.**
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- Ishizuka, T.**
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- Iskandar, I.K.**
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- Ismailov, A.K.**
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- Isoke, K.**
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- Ispirian, R.A.**
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- Ispravnikova, V.V.**
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- Israel, I.U.A.**
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- Israelsson, S.**
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- Itagaki, K.**
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- Iten, O.**
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- Ito, A.**
Current state of harbor structures in Hokkaido: report of results of study on frost damage to harbor concrete structures [1989, p.241-246, jpn] 44-3634
- Ito, H.**
Dynamic interaction between snow and machine structure (first report, the dependence of velocity on friction factor) [1989, p.171-176, jpn] 44-2875
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Study of titanium lining method for snow gutter [1989, p.295-300, jpn] 44-2893
- Ito, M.**
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- Ito, T.**
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- Ito, Y.**
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- Itoh, D.**
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- Itoh, Y.**
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- Iuft, G.A.**
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- Iulin, A.V.**
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- Iurganov, M.M.**
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- Iurkovskaja, T.K.**
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- Iuzvich, V.N.**
Calculation of stress-strain state in a cylindrical pipe at low temperatures [1990, p. 253-257, rus] **44-4393**
- Ivanov, A.I.**
Statistical evaluation of the density and direction of glacier crevasses [1989, p. 140-143, rus] **44-3350**
- Ivanov, A.M.**
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- Ivanov, A.V.**
Chemical interaction in the system "water-ice-rock" [1989, p. 75-80, rus] **44-339**
Forest fires and long-term variation in the chemical composition of atmospheric precipitation and snow cover [1989, p. 3-14, rus] **44-4221**
- Ivanov, F.M.**
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- Ivanov, N.A.**
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- Ivanov, P.E.**
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- Ivanov, V.V.**
Arctic water resources and their studies: the state-of-the-art and future plans [1990, p. 193-202, eng] **44-4089**
- Ivanova, O.S.**
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- Ivarsson, H.**
Erosion and human land-use in the Oreälven River valley, northern Sweden [1988, p. 137-150, swe] **44-94**
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Some statistical properties of ground level air pollution at Norwegian Arctic stations and their relation to large scale atmospheric flow systems [1989, p. 2451-2462, eng] **44-2258**
- Iverson, N.R.**
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- Iwamatsu, H.**
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- Iwata, S.**
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- Izumi, K.**
Concrete abrasion due to a movement of ice sheet [1985, p. 190-195, jpn] **44-2314**
Effects of solar radiation on the formation of weak wet snow [1989, p. 120-123, eng] **44-559**
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Meteorological conditions at the avalanche release in Niigata Prefecture [1987, p. 422-426, jpn] **44-2556**
Report on the facilities for snow avalanche prevention in Europe [1989, p. 83-88, jpn] **44-2634**
Runout distance of large-scale avalanches [1985, p. 240-244, jpn] **44-2322**
Some considerations on ice control in a harbor [1988, p. 322-329, jpn] **44-2700**
- Izuta, H.**
Experimental study on frost heave under tri-axial stress [1989, 2p., jpn] **44-3223**
Frost heave of over-consolidated soil [1989, p. 275-284, jpn] **44-2356**
Laboratory experiment on increment of earth pressure accompanying frost heaving. Part 2. The case of consolidated soil [1988, 2p., jpn] **44-3220**
Laboratory study on mechanical behavior of circular cylinder of thick frozen soils under outer pressure [1989, 2p., jpn] **44-3221**
Local ice segregation and water migration in frozen soil under constant temperature gradient [1985, p. 735-738, jpn] **44-3093**
- Jaccard, C.**
Thermodynamics of irreversible processes applied to ice [1984, p. 99-118, eng] **44-2076**
- Jacka, T.H.**
Antarctic and southern ocean sea-ice and climate trends [1990, p. 127-130, eng] **44-4177**
- Jackson, G.**
Concurrent remote sensing of arctic sea ice from submarine and aircraft [1989, 20p., eng] **44-3376**
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Determination of the surface and bed topography in central Greenland [1990, p. 17-30, eng] **44-3717**
Digital low-frequency, surface-profiling ice-radar system [1990, p. 112-121, eng] **44-3730**
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Determination of thermal conductivity in freezing moist soils [1990, p. 355-361, eng] **44-4243**
- Jacobs, S.**
SMR observations of the sea ice regime in the Ross Sea, 1979-1985 [1990, p. 179-181, eng] **44-3846**
Subsurface currents in the southeast Ross Sea [1988, p. 80-81, eng] **44-1704**
- Jacobs, S.S.**
Marine controls on modern sedimentation on the antarctic continental shelf [1989, p. 121-153, eng] **44-3934**
- Jain, S.C.**
Minimization of frazil-ice production by river flow regulation [1989, p. 1256-1274, eng] **44-120**
- Jairrell, R.L.**
Sequential flash for photographing trajectories of saltating particles [1989, p. 130-133, eng] **44-514**
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Soil formation on the Peninsula Tugtutligssuaq, Melville Bay, North West Greenland [1988, p. 86-93, eng] **44-2581**
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Oceanographical variations in the Iceland Sea and their impact on biological conditions, a brief review [1989, p. 427-455, eng] **44-3431**
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Sea ice off the Icelandic coasts [1990, p. 106-110, eng] **44-4075**
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Composition and stability of the condensate observed at the Viking Lander 2 site on Mars [1986, p. 134-142, eng] **44-2397**
Mars atmospheric D/H consistent with polar volatile theory? [1990, p. 1475-1480, eng] **44-2293**
Sublimation and transport of water from the north residual polar cap on Mars [1990, p. 1423-1437, eng] **44-2290**
Year-to-year instability of the Mars south polar cap [1990, p. 1359-1365, eng] **44-2287**
- James, D.A.**
Geotechnical aspects of northern gas pipeline design [1990, p. 299-307, eng] **44-3675**
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Boundary layer profile investigations downstream of an aero-engine intake anti-icing air exhaust slot [1987, 8p., eng] **44-1292**
- James, I.N.**
Antarctic drainage flow: implications for hemispheric flow on the Southern Hemisphere [1989, p. 279-290, eng] **44-65**
- James, L.A.**
Rates of organic carbon accumulation in young mineral soils near Burroughs Glacier, Glacier Bay, Alaska [1988, p. 50-70, eng] **44-49**
- James, O.B.**
Planetary geosciences, 1988 [1989, 113p., eng] **44-791**
- James, P.B.**
Role of water ice clouds in the Martian hydrologic cycle [1990, p. 1439-1445, eng] **44-2291**
Seasonal recession of Mars' south polar cap in 1986 [1990, p. 1337-1341, eng] **44-2285**
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In-situ tensile tests of snow-pack layers [1990, p. 102-106, eng] **44-3728**
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State of the art of pavement response monitoring systems for roads and airfields [1989, 401p., eng] **44-1636**
Use of soft grade asphalts in airfields and highway pavements in cold regions [1990, 47p., eng] **44-4059**
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Eleven months in the installation of an arctic mobile drilling structure [1984, p. A-1-A-19, eng] **44-3450**
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- Japanese Oceanographic Society**
Autumn Conference of the Japanese Oceanographic Society, Sendai, Japan, Oct. 2-6, 1985. Summaries of the lectures [1985, 327p., jpn] **44-56**
- Jaquin, R.F.**
Middle Martian atmosphere [1989, 135p., eng] **44-962**
- Jardine, K.G.**
Evaluation of low temperature and permanent deformation characteristics of some engineered asphalts [1988, p. 292-310, eng] **44-2843**
- Jason, N.H.**
Proceedings [1989, 202p., eng] **44-1444**
- Jategaonkar, R.P.**
Development of a procedure for predicting propeller-ice interaction forces [1989, 263p., eng] **44-391**
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On a frequency analysis of ice impacts [1989, 8p., eng] **44-3735**
- Jeffries, D.S.**
Major ion chemistry of the pre-melt snowpack, Turkey Lake watershed, 1980-1988 [1989, p. 277-281, eng] **44-4027**
- Jeffries, M.O.**
Arctic ice island and sea ice movements and mechanical properties. Fourteenth quarterly report, 1 January 1987-31 March 1987 [1987, 31p., eng] **44-722**
Failure stress and failure modulus of natural ice island ice under uniaxial compression at constant strain rates [1990, p. 223-229, eng] **44-2227**
Ice island detection and characterization using airborne synthetic aperture radar [1990, p. 5371-5377, eng] **44-3279**
- Port and ocean engineering under arctic conditions. Proceedings, Vol. 2 [1988, 111p., eng] **44-860****
- Port and ocean engineering under arctic conditions. Vol. 3 [1988, 683p., eng] **44-1123****
- Some measurements and observations of very old sea ice and brackish ice, Ward Hunt Ice Shelf, N.W.T. [1989, p. 553-564, eng] **44-1015****
- Jéhanno, C.**
Search for the Tunguska event in the antarctic snow [1988, p. 156-157, eng] **44-1747**
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Analytical methods for detecting military-unique compounds [1989, p. 13-14, eng] **44-3747**
Development of an analytical method for the determination of explosive residues in soil. Part 3. Collaborative test results and final performance evaluation [1989, 89p., eng] **44-3757**
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Salting-out solvent extraction for preconcentration of neutral organic solutes from water (1990, p.1355-1356, eng) 44-3922

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1400-year oxygen isotope history from the Ross Sea area, Antarctica (1990, p.94-98, eng) 44-4169

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Observational study of the Northern Hemisphere wintertime circulation associated with the cold winter and the warm winter of Korea, part 1: stationary waves (1988, p.16-35, eng) 44-1447

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Jerry Brown urges cooperation (1989, p.11, rus) 44-2956

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Antarctic ice sheet brightness temperature variations (1990, p.217-223, eng) 44-3854

High frequency acoustical properties of saline ice (1989, p.9-23, eng) 44-3135

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RADTAR microwave surface emission models (1989, p.433-440, eng) 44-1325

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Note on new ice gouge events in Alaskan Beaufort Sea (1989, p.145-149, eng) 44-1772

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Study on snow load for structural design. Pt. 1 (1985, p.83-88, jpn) 44-2297

Study on snow load for structural design. Pt. 2 (1985, p.89-94, jpn) 44-2298

Survey of the roof snow depth by aerial photogrammetry (Part 1: Accuracy of the measurement) (1986, p.79-81, jpn) 44-2448

Survey of the roof snow depth by aerial photogrammetry. (Part 2: errors in the measurement on three different types of roofs) (1987, p.163-167, jpn) 44-2534

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Johannessen, O.

NOAA AVHRR observations during the Marginal Ice Zone Experiment, between Spitsbergen and Greenland, June 7 to July 18, 1984. Final report (1988, 130p., eng) 44-840

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Ice eddy ambient noise (1988, p.599-605, eng) 44-1713

Surface expressions of eddies within the ice pack (1990, p.3-4, eng) 44-3351

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Time-scale for adjustment of glaciers to changes in mass balance (1989, p.355-369, eng) 44-1897

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Ice load criteria for arctic vessels (1990, p.W/1-W/32, eng) 44-3484

Oden: a state-of-the-art icebreaker (1989, p.1229-1265, eng) 44-4428

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Regional aquifer systems of the United States: the Northeast glacial aquifers (1988, 156p., eng) 44-2

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Determination of fines produced during crushing, handling, and placement of aggregates employed in roadway construction. Final report 21 May 85-30 Sep. 86 (1986, 74p., eng) 44-1247

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Major Arctic outbreaks affecting Louisiana (1988, p.5-14, eng) 44-2086

Johnson, G.L.

Marine arctic scientific geological research problems (1990, p.317-330, eng) 44-4101

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Techniques for gas gun studies of shock wave attenuation in snow (1988, p.657-660, eng) 44-628

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Flow resistance under an ice cover [1988, p.28-33, rus] 44-4220
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Analysis of reliability of polar pipelines [1990, p.173-177, eng] 44-2080
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- Khasankoev, V.B.**
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- International project of the ozonosphere investigation on Heiss Island (HIP experiment) [1990, p.224-226, eng] 44-4092
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- Khazaradze, R.D.**
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- Khursevich, G.K.**
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Deformation and failure of steel VNS25 at low temperatures taking account of the form of stressed state and stress concentrations (1989, p.56-59, eng) 44-3880
- Kido, Y.**
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H₂O grain size and the amount of dust in Mars' residual north polar cap (1990, p.1481-1493, eng) 44-2294
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Vertical distributions of the concentration of submicron aerosol particles near the ground surface (1987, p.963-971, eng) 44-1305
- Kikuchi, M.**
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Unmanned weather observations at the advance camp in east Queen Maud Land, Antarctica (1988, p.39-46, jpn) 44-102
- Kiljan, J.**
Vergilmit evaluation (Boulder). Final report (1989, 21p. + appends., eng) 44-3337
- Killingtveit, A.**
Snow-radar: an efficient tool for areal snow pack assessments (1988, p.145-157, eng) 44-244
Snow-radar: an efficient tool for areal snow pack assessments (1988, p.259-271, eng) 44-3324
The snow radar: a new device for areal snow depth measurements (1987, p.269-284, eng) 44-3316
- Killough, J.G.**
Detailed test plan, production prove-out test (PPT) of the standard integrated command post system (SICPS): shelter command post (SCP) (1989, 18p. + appends., eng) 44-1845
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Study on the climate characteristics over King Sejong Station, Antarctica (1988-1989) (1990, p.47-57, kor) 44-4252
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Study on the climate characteristics over King Sejong Station, Antarctica (1988-1989) (1990, p.47-57, kor) 44-4252
- Kimberly, J.L.**
JUH-1H redesigned pneumatic boot deicing system flight test evaluation. Final report 15 Nov. 1983-7 Mar. 1986 (1987, 144p., eng) 44-712
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Seasonal snowfall totals in northern New England: recent trends and variability (1988, p.14-25, eng) 44-4275
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Jacket structures in the arctic and subarctic seas (1988, p.1-6, eng) 44-3347
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Studies on a practical use of pavement freezing detector (1989, p.579-584, jpn) 44-2919
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Saltation flow measurements relating to modeling of snow-drifting (1982, p.89-102, eng) 44-417
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Investigation into the forces required to tow cables and sledges over antarctic snow (1989, p.77-82, eng) 44-830
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- King, H.W.**
Low temperature benefits of polymer modified asphalts (1988, p.198-216, eng) 44-2839
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Over-winter chemistry of subarctic fens, eastern Canada (1989, p.97-108, eng) 44-115
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Tensile reinforcement of road embankments on polygonal ground using geosynthetics. Final report (1986, 53p., eng) 44-3408
- Kinoshita, J.**
Neptune (1989, p.82-91, eng) 44-3258
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Ice segregation on a microporous filter (1989, p.567-568, eng) 44-938
Rheology in soil engineering. Part 5. Rheology of frozen ground (1981, p.83-90, jpn) 44-3087
Segregated ice growth on a microporous filter (1989, p.113-124, eng) 44-1815
- Kipko, E.I.A.**
Method for determining the length of freezing in cement screens under permafrost conditions (1987, p.5-6, rus) 44-327
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Glacial meltwater input to the Alaska Coastal Current: evidence from oxygen isotope measurements (1990, p.5177-5181, eng) 44-3277
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- Kirchner, J.D.**
Flow and heat transfer in an inclined, closed tube thermosyphon (1988, p.205-213, eng) 44-1417
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Identification of some global volcanic horizons by major element analysis of fine ash in antarctic ice (1990, p.216-220, eng) 44-4197
Origins and variations of nitrate in south polar precipitation (1990, p.3493-3507, eng) 44-3068
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Prolonged anabiosis for sporogenous bacteria in the interior of the Central Antarctic Glacier (1989, p.566-571, eng) 44-1473
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- Kiselev, I.U.G.**
Soviet seismic investigations in deep-sea Arctic Ocean regions (1990, p.347-348, eng) 44-4106
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Effect of various impurities on the ice forming efficiency of silver iodide aerosols (1989, p.11-19, rus) 44-4225
- Kiseleva, O.G.**
Increase in the resistance of synthetic latexes to freezing on addition of modifying additives (1990, p.873-876, eng) 44-3598
Increasing resistance of synthetic latexes to freezing upon the introduction of modifying additions (1989, p.1004-1007, rus) 44-2571
- Kishi, M.**
Statistical analysis on dominating factor of pH in rain and snow samples (1988, p.389-397, eng) 44-1299
- Kishimoto, H.**
Properties of EGI at IHI ice model tank (1988, p.283-288, jpn) 44-2695
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- Kishinami, K.**
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- Kitagawa, H.**
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Comparative model tests in ice of a Canadian Coast Guard R-class icebreaker (1990, p.31-52, eng) 44-4421
- Kitaguchi, T.**
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- Kitano, K.**
Measurement of snowflake size and falling velocity by image processing (1989, p.48-54, eng) 44-1801
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- Kite, G.**
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- Kivikas, L.**
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- Kiyokawa, T.**
Hydrodynamic forces acting on axisymmetric bodies immersed in ice covered sea during earthquakes (1989, p.153-160, eng) 44-1114
- Kizawa, K.**
Study on improving the accuracy of observations of winter flow. Part 1 (1987, p.495-500, jpn) 44-3587
- Kjartansson, B.H.**
Pressuremeter creep testing in ice: calibration and test procedures (1990, p.3-9, eng) 44-4147
- Kjelstrom, L.C.**
Method of estimating flood-frequency parameters for streams in Idaho (1981, 99p. + maps, eng) 44-824
- Klaassen, W.**
Attenuation and reflection of radio waves by a melting layer of precipitation (1990, p.39-44, eng) 44-2595
- Klein, G.S.**
Problems of technical refitting for hydrological observation systems (1989, p.58-73 (Pertinent p.67-68), rus) 44-3909
- Klein, M.L.**
High-density structures and phase transition in an ionic model of H₂O ice (1989, p.2716-2718, eng) 44-288
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- Kleinerman, M.M.**
Proceedings (1989, 475p., eng) 44-3132
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Solidification around a cylinder in laminar cross flow (1989, p.322-327, eng) 44-2389

- Klimczak, R.**
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- Klimin, N.N.**
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- Kliuchnikova, L.P.**
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- Kloster, K.**
NOAA AVHRR observations during the Marginal Ice Zone Experiment, between Spitsbergen and Greenland, June 7 to July 18, 1984. Final report [1988, 130p., eng] 44-840
- Klug, D.D.**
Entropy of amorphous ice [1989, p.782-783, eng] 44-1409
Nature of the transformations of ice I and low-density amorphous ice to high-density amorphous ice [1989, p.7187-7192, eng] 44-1936
- Kluge, V.B.**
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- Kniazev, I.U.A.**
Large scale bottom topography survey from ice approaching Molodetzchnaya Station [1989, p.108-114, rus] 44-3074
- Knig't, C.**
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- Knight, C.A.**
Lagrangian modeling of the ice process: a first-echo case [1990, p.418-428, eng] 44-3875
Nucleation on cylindrical nuclei [1987, p.599-601, eng] 44-1791
- Knight, D.N.**
Oceanographic survey of the Canadian arctic archipelago, Mar. 1982 [1984, 415p., eng] 44-197
Oceanographic survey of the Canadian arctic archipelago, Mar. 1983 [1984, 355p., eng] 44-198
- Knight, P.G.**
Stacking of basal debris layers without bulk freezing-on: isotopic evidence from West Greenland [1989, p.214-216, eng] 44-1548
- Knighton, R.E.**
Redistribution of soil water and solutes in fine and coarse textured soils after freezing [1990, p.263-270, eng] 44-2993
- Knodel, B.D.**
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- Knöner, R.**
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Temporal changes of glacier hydrological systems indicated by isotopic and related observations at Austre Okstind-breen, Okstindan, Norway, 1976-87 [1989, p.252-256, eng] 44-584
- Knuth, K.V.**
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- Knutsson, S.**
Volume changes accompanying creep of frozen soil [1988, p.477-487, eng] 44-1165
- Kobata, T.**
Investigation and simulation of heat storage in aquifer in Hokkaido [1988, p.591-596, jpn] 44-2732
- Kobayashi, A.**
Design of a concrete structure in icy waters [1987, p.311-317, jpn] 44-2544
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Chemical dynamics of snowmelt runoff [1986, p.336-339, jpn] 44-2477
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- Kobayashi, M.**
Apparent friction coefficient between steel and ice under high contact pressure [1989, p.404-409, jpn] 44-2906
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- Kobayashi, S.**
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On the collection efficiency of snow drift collectors [1986, p.98-102, jpn] 44-2451
- Kobayashi, T.**
Performance of the agitator in hydraulic snow transportation system [1986, p.633-638, jpn] 44-2510
Studies on the dynamics of the two-phase flow composed of snow and water [1985, p.452-457, jpn] 44-2338
- Kobayashi, Y.**
Development of sensor detected road surface conditions [1988, p.164-169, jpn] 44-2678
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- Kobeleva, N.V.**
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- Kobiyama, M.**
"Himuro project '88" Funagata total snow utility system; retarding culture by snow [1988, p.541-545, jpn] 44-2724
"Himuro project '88" Funagata type total snow utility system [1988, p.536-540, jpn] 44-2723
"HIMURO project" constant temperature storage house heated by the respiration heat of agricultural products [1989, p.254-257, jpn] 44-2886
"Himuro project" insulation and utilization of solar radiation onto the snow/ice shed [1988, p.546-549, jpn] 44-2725
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"Himuro project" thinking about snow utility at '88 [1988, p.550-555, jpn] 44-2726
Study on the storage and utilize system of the cold heat in winter "HIMURO plan" [1986, p.423-428, jpn] 44-2483
- Kobota, H.**
Test for characteristics of ice and snow tire and indoor test machine [1988, p.233-238, jpn] 44-2690
- Kocher, V.A.**
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- Kodama, Y.**
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- Kodera, K.**
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- Koerberl, C.**
Volcanic ash layers in blue ice fields (Beardmore Glacier area, Antarctica): iridium enrichments [1988, p.93-94, eng] 44-1746
- Koerner, R.M.**
Record of Holocene summer climate from a Canadian high-arctic ice core [1990, p.630-631, eng] 44-2103
Snow freezes moments in time [1988, p.1-5, eng] 44-1534
- Koh, G.**
Optical measurement of precipitation [1989, 13p., eng] 44-694
- Koh, Y.**
Cold weather concreting in Japan [1985, p.97-121, eng] 44-1978
Control of cold weather concreting in Japan by a system of deciding water-cement ratio of concrete mix [1985, p.255-262, eng] 44-1989
Expansion of concrete due to freezing and thawing [1985, p.196-201, jpn] 44-2315
Influence of curing conditions on the compressive strength and the Young's modulus of elasticity of concrete affected by frost damage in early age [1985, p.281-287, eng] 44-1991
Technical method of cold weather concreting [1985, p.202-207, jpn] 44-2316
- Kohler, J.**
Subglacial water pressures and the shape of subglacial conduits [1990, p.67-71, eng] 44-3723
- Kohnen, H.**
Support of antarctic operations of the Federal Republic of Germany by the aid of remote sensing techniques [1989, p.24-26, eng] 44-3445
- Kohno, M.**
Mechanical properties of A286 alloy at cryogenic temperatures [1988, p.85-88, jpn] 44-1312
- Kohonen, R.**
Hygrothermal influence of air convection in wall structures [1989, p.234-249, eng] 44-1357
- Kojima, K.**
Report of pit-wall observations of snow cover in Moshiri, Hokkaido (December, 1979-January, 1989) [1989, p.7-22, jpn] 44-3042
- Kojima, S.**
Road heating system applied heat pumps recovered waste heat of subway [1988, p.393-398, jpn] 44-2709
Road heating system applied heat pumps recovered waste heat of subway [1989, p.259-264, jpn] 44-2887
- Kok, H.**
Field and laboratory techniques for frozen and thawing soil [1990, p.271-278, eng] 44-2994
Freeze thaw effects on soil strength [1990, p.70-76, eng] 44-2968
Freeze-thaw-induced variability of soil shear strength [1989, 200p., eng] 44-1016
- Kokarev, A.L.**
Specific features of landscape differentiation in mountain glacier complexes [1989, p.216-223, rus] 44-1398
- Kokita, M.**
Road heating system applied heat pumps recovered waste heat of subway [1988, p.393-398, jpn] 44-2709
Road heating system applied heat pumps recovered waste heat of subway [1989, p.259-264, jpn] 44-2887
- Kolchin, G.G.**
Effect of phase conversion on viscosity of metastable steel for cryogenic purposes [1990, p.243-247, rus] 44-4391
- Kolesnikov, E.I.**
Rare occurrence of the destruction of snow retention structures by an avalanche [1989, p.49-53, rus] 44-1571
- Kolesnikov, L.I.**
Effect of frost-heave forces of soils on the bearing capacity of pyramidal piles [1990, p.243-248, eng] 44-4419
- Kolesnikov, S.I.**
Influence of heavy fractions on low-temperature properties of diesel fuels [1989, p.39-41, eng] 44-1680
- Kolhn Leonoff Ltd.**
Icequakes: a model technique for liquefaction potential assessment [1989, p.56, eng] 44-1930
- Kollé, J.J.**
Moving an ice mountain [1990, p.48-53, eng] 44-3786
- Kollman, P.**
New water potential including polarization: application to gas-phase, liquid, and crystal properties of water [1990, p.6755-6760, eng] 44-3593
- Kolodiaznyi, V.A.**
Installation of light-optical beacon equipment for navigation signals at Molodetzchnaya Station [1989, p.120-125, rus] 44-3076
- Kolodko, J.**
Influence of some environmental factors on the evolution of river ice covers [1989, p.116-121, eng] 44-2028
Study of instability phenomena on ice-water interfaces [1989, p.107-115, eng] 44-2027
- Kolomeets, E.V.**
Estimating snow moisture reserve and soil humidity from cosmic rays [1988, p.163-165, eng] 44-1105

- Kolomiets, N.A.**
NMR study of the effect of organic ice-forming compounds on the freezing point of an emulsion of the water-oil type [1990, p.1016-1018, eng] 44-3972
Nuclear magnetic resonance study of the effect of organic ice-forming compounds on the freezing temperature of a water-oil emulsion [1989, p.1172-1174, rus] 44-2574
- Kolousek, M.**
Small energy systems for telecommunications equipment in cold climate remote areas [1986, p.317-324, eng] 44-1455
- Komarov, I.A.**
Role of gas hydrates in cryolithogenesis of marine deposits in the arctic basin [1988, p.1-12, eng] 44-593
- Komarov, V.D.**
Long-term forecasts of the water flow into reservoirs of large hydroelectric plants [1988, p.58-63, eng] 44-1836
- Komatsu, J.**
Study for the design of agricultural concrete canal in cold region [1987, p.445-448, jpn] 44-2560
- Komatsu, Y.**
Foundation design to no sprinkling snow melting [1987, p.236-241, jpn] 44-2538
- Komhyr, W.D.**
On the transfer of stratospheric ozone into the troposphere near the North Pole [1989, p.245-253, eng] 44-2178
- Kömle, N.I.**
Heating of dust particles enclosed in icy material [1989, p.193-195, eng] 44-525
- Kommel, R.**
Arctic research programs in Sweden [1989, p.31-38, eng] 44-127
- Komukai, K.**
Countermeasure against low temperature in telecommunication station in winter [1989, p.551-556, jpn] 44-2914
- Komyshenets, V.I.**
Drift of a giant iceberg in the Weddell Sea [1989, p.68-71, eng] 44-1004
- Konash, V.E.**
Radial adfreezing of permafrost in the basement of buildings [1989, p.491-496, eng] 44-925
- Konda, Y.**
Melting behavior of snow layers by an aqueous solution with a low solidification temperature [1986, p.161-165, jpn] 44-1345
- Kondakov, V.V.**
Dependence of phase composition of water in freezing and frozen soils on external pressure [1989, p.21-27, rus] 44-2517
- Kondakova, O.A.**
Dependence of phase composition of water in freezing and frozen soils on external pressure [1989, p.21-27, rus] 44-2517
- Kondo, H.**
Effect of freezing of constricted inlets on the tidal current at their entrances [1985, p.103-107, jpn] 44-2300
- Kondo, J.**
Prediction model for snowmelt, snow surface temperature and freezing depth using a heat balance method [1990, p.375-384, eng] 44-3874
- Kondrasheva, N.K.**
Low-viscosity marine fuel with improved low-temperature properties [1990, p.422-424, eng] 44-3970
- Kondrashev, I.V.**
Methodical basis of avalanche forecasting [1989, p.155-164, rus] 44-1584
- Kondrat'ev, K.I.A.**
Comprehensive satellite and airborne investigation of radar characteristics of fresh-water ice sheets [1988, p.6-8, eng] 44-1559
Impact of land surface processes on climatic change, and the International Satellite Land Surface Climatology Project [1989, p.1170-1189, eng] 44-1832
Microwave emission properties of various types of underlying surfaces at subzero temperatures [1989, p.67-70, rus] 44-180
- Kong, J.A.**
Active and passive remote sensing of ice. Final report 1 Feb.-31 July 88 [1989, 23p., eng] 44-845
Active and passive remote sensing of ice. Final report 1 Oct. 88-30 Sep. 89 [1989, 15p., eng] 44-2654
Active and passive remote sensing of ice. Final report 16 Feb. 83-30 Sep. 88 [1989, 23p., eng] 44-856
Active and passive remote sensing of ice: semi-annual progress report 1 Aug. 87-31 Jan. 88 [1988, 13p., eng] 44-852
Active and passive remote sensing of ice. Semiannual report, 1 Feb.-31 July 1987 [1987, 11p., eng] 44-1609
Correlation function study for sea ice [1988, p.14,055-14,063, eng] 44-261
Electromagnetic wave probing of earth's environment. Final report, February 1-December 31, 1987 [1988, 6p., eng] 44-1607
Electromagnetic wave theory [1988, p.193-195, eng] 44-789
Electromagnetic wave theory and applications [1989, p.181-186, eng] 44-788
Remote sensing of earth terrain. Final report September 1, 1982-March 31, 1989 [1989, 26p., eng] 44-990
- Remote sensing of earth terrain. Semiannual report, March 1-August 31, 1987 [1987, 13p., eng] 44-1631
- Konishi, H.**
Measurement of snowflake size and falling velocity by image processing [1989, p.48-54, eng] 44-1801
Measurements of falling attitudes of snowflakes using two video cameras [1990, p.95-99, eng] 44-3549
Some measuring methods of snowfall rate for radar snow gauge [1986, p.92-97, jpn] 44-2450
Vertical structure in convective clouds producing graupels and snowflake aggregates [1989, p.41-47, eng] 44-1800
- Konushkov, D.E.**
Geography of soils in the permafrost region [1989, p.258-263, rus] 44-3556
- Kon'kova, N.A.**
Thermal regime of moorings in a Yakut river port [1989, p.68-71, rus] 44-373
- Konno, S.**
Impact tensile strength of concrete under low temperature [1987, p.467-472, jpn] 44-2562
- Kononenko, S.M.**
Forecasting ice fogs [1989, p.121-127, rus] 44-1494
- Konoval'chuk, V.V.**
Analysis of ecological and economical factors for designing facilities for the oil and gas industry [1989, p.165-169, rus] 44-4530
- Konovalenko, L.A.**
Climate and vegetation during the Shklov interglacial near the central Pechora according to palynological data [1985, p.108-114, rus] 44-483
- Konovalov, A.A.**
Calculating tangential and normal forces of heaving with regard to rheological properties of freezing ground [1989, p.96-101, rus] 44-2158
Practical instructions for calculating stationary soil temperature fields [1988, 51p., rus] 44-1938
- Konrad, J.M.**
Influence of freezing mode on frost heave characteristics [1988, p.161-175, eng] 44-3507
Theoretical modeling of massive ice beds [1990, p.31-35, eng] 44-3640
Unfrozen water as a function of void ratio in a clayey silt [1990, p.49-55, eng] 44-3539
- Konstantinov, V.D.**
Regime of groundwaters and runoff in forests and swamps of the Yenisei part of western Siberia [1986, p.10-16, eng] 44-516
- Kontsevaia, V.V.**
Study of snow accumulation on various topographic forms in the Khibiny Mountains [1989, p.232-240, rus] 44-1594
- Konuk, I.**
Modelling the behaviour of an oil saturated sand [1990, p.31-37, eng] 44-2204
- Kopcewicz, B.**
Heterogeneous nucleation of ice at the liquid-liquid interface [1990, p.87-96, eng] 44-2787
- Kopko, R.J.**
Low temperature pumpability studies in a heavy duty diesel engine. Pt. 2 [1989, 16p., eng] 44-2851
- Kopsch, H.**
Behavior of polymer-modified bitumens at low temperatures [1990, p.10-13, ger] 44-3304
- Kopteva, T.A.**
Influence of low temperatures on tribotechnical characteristics in vacuum of friction assemblies with multicomponent solid lubricant coatings [1989, p.60-65, eng] 44-3009
- Kopysitskaia, L.N.**
Evaluation of low-cyclic strength of cryogenic equipment [1990, p.161-167, rus] 44-4373
- Korea Ocean Research and Development Institute**
Study of natural environment in the area around the Korean antarctic station, King George Island (II) [1989, 485p., kor] 44-762
- Korepanov, A.A.**
Snow cover, freezing and thawing of soil in pine forests of the Kama River region [1989, p.64-68, rus] 44-2352
- Korfage, G.R.**
Effect of concrete shoulders, land widening and frozen subgrade on concrete pavement performance. Final report 1982-88 [1988, 21p., eng] 44-2813
- Korhonen, C.J.**
Antifreeze admixtures for cold weather concreting. Preliminary test results [1990, 8p., eng] 44-3915
Performance of wall coatings for concrete and masonry buildings in Alaska [1989, 27 refs., eng] 44-1878
- Koriakin, V.S.**
Arctic glaciers [1988, 157p., rus] 44-194
- Korkan, K.D.**
Evaluation of icing drag coefficient correlations applied to iced propeller performance prediction [1987, p.6,107-6,117, eng] 44-1192
Ice induced aerodynamic performance degradation of rotorcraft: an overview [1989, p.23/1-23/34, eng] 44-3381
- Kornev, G.K.**
Extremal estimates in the theory of freezing of filtering soils [1990, p.569-574, eng] 44-3580
- Kornev, K.G.**
Determination of the equilibrium shape of the bodies formed during the solidification of filtration flow [1990, p.773-778, eng] 44-3112
- Kornienko, E.E.**
Evaluating the effect of weather modification on cumulonimbus clouds for artificial increase of precipitation [1989, p.71-101, rus] 44-4233
Microstructure and phase structure of convective clouds in the steppes of the Ukraine [1989, p.66-71, rus] 44-4232
- Korobeinikov, V.P.**
Influence of wave processes and instabilities under sea ice cover on formation of pools of open water [1990, p.151-152, eng] 44-4083
- Koroleva, G.P.**
Use of concretes containing antifreeze admixtures and hardening at below-zero temperatures [1985, p.42-51, eng] 44-1974
- Koronelli, T.V.**
Oil pollution and stability of arctic marine ecosystems [1990, p.236-237, eng] 44-4095
- Korotaeu, I.U.P.**
Using systems analysis for modeling optimal regimes in operating natural gas production installations [1989, 263p., rus] 44-2102
- Korotich, A.V.**
Folding shell models test for aerodynamic streamlining and pattern of snow load distribution [1989, p.47-51, rus] 44-1055
- Korotkevich, E.S.**
Ice-core record of atmospheric methane over the past 160,000 years [1990, p.127-131, eng] 44-3579
Palaeoclimatological and chronological implications of the Vostok core dust record [1990, p.56-58, eng] 44-1537
- Korotkov, A.I.**
Regularity of ice formation conditions in Russkaya Station coastal zone [1989, p.16-29, rus] 44-2820
- Korshunov, V.V.**
Drilling frozen ground with an instrument of extra-hard materials [1989, p.41-42, rus] 44-386
- Korzhenevskii, B.A.**
Results of the first All-Union Congress of engineering geologists, hydrogeologists and geocryologists [1989, p.3-20, rus] 44-1252
- Kosar, K.**
Ice scour models [1990, p.179-188, eng] 44-2081
- Kosarev, B.I.**
Electrical supply installations for the Baykal-Amur mainline [1989, 175p., rus] 44-1826
- Koshuninaev, V.V.**
Unconventionally shaped icebreaker [1989, p.9-11, rus] 44-3212
- Koskinen, I.**
Proceedings [1985, 361p. + appends., eng] 44-1971
RILEM recommendations for concreting in cold weather [1988, 183p., eng] 44-1052
- Kosloff, P.**
Ice and snow geophysics in area II [1988, p.41-68, eng] 44-1426
Internal structure, composition and properties of brackish ice from the Bay of Bothnia [1990, p.5-15, eng] 44-3809
Internal structure, composition and properties of brackish ice from the Bay of Bothnia during the BEPER-88 experiment [1989, p.1318-1333, eng] 44-4432
- Kosmakov, I.V.**
Accumulation of water in the ice cover of the Krasnoyarsk reservoir [1989, p.69-80, rus] 44-2935
- Kosov, V.I.**
Physical processes in peat bogs [1989, 284p., rus] 44-1034
- Kossov, O.A.**
Toward peace and security in the Arctic: cooperation between the Soviet Union and the United States [1989, p.58-70, eng] 44-3292
- Kostelians, B.A.**
Ice jams on rivers [1990, p.18-20, rus] 44-4479
- Kostenko, N.A.**
Calculated and experimental determination of ultimate loads for fractured parts at low temperatures [1990, p.114-119, rus] 44-4362
- Kostenko, N.P.**
Principles of structural geomorphological mapping between the Kolyma and Indigirka rivers to evaluate the engineering geological conditions [1989, p.96-103, rus] 44-3709
- Kostiaev, V.I.A.**
Nitrogen in the arctic ecosystems [1990, p.135-140, eng] 44-4112
- Kostilainen, V.**
New large ice model basin at Helsinki University of Technology [1987, 17p., eng] 44-1604
- Kostinkevich, V.V.**
Radiocarbon datings obtained by the Laboratory on the Geochemistry of Permafrost of the Institute of Permafrost SO AN SSSR. Report 9 [1988, p.143-145, rus] 44-2521
- Kostrzewski, A.**
Dynamics and rate of denudation of glaciated and non-glaciated catchments, central Spitsbergen [1989, p.317-367, eng] 44-3056

- Kotelina, N.S.**
Use of experience in agricultural development for tundra re-cultivation [1989, p.139-143, rus] 44-4526
- Kotiakov, V.I.**
Palaeoclimatological and chronological implications of the Vostok core dust record [1990, p.56-58, eng] 44-1537
- Kotliakov, V.M.**
Annotations of the Soviet literature on glaciology for 1986 [1989, p.173-208, rus] 44-357
Arctic research: advances and prospects [1990, 366p., + 445p., eng] 44-4061
Discussion of urgent problems in the Arctic: results of the Conference of Arctic-Rim Countries, Leningrad, December 1988 [1989, p.104-110, eng] 44-2439
International cooperation among arctic researchers [1989, p.129-134, rus] 44-684
Moraines—source of glaciological information [1989, 236p., rus] 44-36
- Kotliar, B.L.**
Problems of adaptation of technology in oil and gas engineering in the extreme conditions of the North from the ecological viewpoint [1989, p.26-39, rus] 44-4509
- Kotliar, L.M.**
Numerical investigation and self-similar solutions of the glacier-ocean interaction problem [1987, p.679-683, eng] 44-1515
- Kotras, T.V.**
Evacuation and survival from offshore drilling and production units in the Bering, Chukchi, and Beaufort seas. Final report, Aug. 1984-Oct. 1985 [1987, var.p., eng] 44-3331
Navarin Basin and ice edge data collection aboard USCGC *Polar Sea*. Vol.2. Ice milling data, March/April 1985 [1986, 215p., eng] 44-1076
Semi-empirical ice resistance model, Vol.1, main report. Final report Oct. 81-Apr. 83 [1983, 126p., eng] 44-885
Ship icebreaking dynamics and level ice resistance testing aboard USCGC *Polar Star* in Antarctica. Final report. Vol.1. Technical report [1985, 52p., eng] 44-1280
Ship icebreaking dynamics and level ice resistance testing aboard USCGC *Polar Star* in Antarctica. Final report. Vol.2. Technical appendices [1985, 302p., eng] 44-1281
Use of marine simulators to simulate ice conditions and ship transits through ice. Final report [1987, 57p., eng] 44-1269
- Kottmeier, S.T.**
AMERIEZ 1986: microbial growth and metabolism in sea ice and the water column of the marginal ice zone [1989, p.188-190, eng] 44-29
- Kouchi, A.**
Amorphization of cubic ice by ultraviolet radiation [1990, p.134-135, eng] 44-3115
- Koudate, H.**
Fundamental study on standard design methods of snow-conveyance gutter systems and snow-melting gutter systems [1989, p.239-251, jpn] 44-2353
- Kouhi, F.A.**
Effect of volatility changes on vehicle cold-start driveability [1989, 20p., eng] 44-2858
- Kouhi, J.**
Concrete-steel composite structures [1989, 174p., fin] 44-464
Static and cyclic load tests of a composite ice-resisting wall [1989, 59p., eng] 44-1597
- Konkkari, H.**
Concrete-steel composite structures [1989, 174p., fin] 44-464
- Koutselos, L.T.**
Galloping of overhead transmission lines [1990, 264p., eng] 44-3272
- Kouzeki, D.**
Radar observation of snowfall [1986, p.55-60, jpn] 44-2446
- Kovacs, A.**
Airborne measurement of sea ice thickness using electromagnetic induction during LIMEX 89 [1990, p.309-315, eng] 44-2240
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Development of an airborne sea ice thickness measurement system and field test results [1989, 47p., eng] 44-4265
Estimating sea ice thickness using time-of-flight data from impulse radar soundings [1989, 10p., eng] 44-2848
Investigation of the LIZ-3 Dew Line Station water supply lake [1990, 10p., eng] 44-3752
Sea ice thickness measurement using a down-sized airborne electromagnetic-sounding system [1989, p.394-424, eng] 44-3159
Sea ice thickness versus impulse radar time-of-flight data [1990, p.91-98, eng] 44-3543
- Koval', G.M.**
Development trends in icebreakers and ice-going transport ships [1989, p.3-6, rus] 44-3210
- Koval'chuk, B.I.**
Deformation and failure of steel VNS25 at low temperatures taking account of the form of stressed state and stress concentrations [1989, p.56-59, eng] 44-3880
- Koval'chuk, V.M.**
Study of thermal processes and technological systems in processing open freight cars using an induction assembly for mechanizing the unloading of frozen coal [1988, p.67-74, rus] 44-1501
- Kovalev, I.U.D.**
Physical properties of carbonate rocks in Western Yakutia based on results of measurements of a naturally-frozen drill core [1989, p.121-128, rus] 44-2053
- Kovalev, R.V.**
All-Union Congress of Soil Scientists, 8th, Novosibirsk, Aug. 14-18, 1989. Summaries. Book 1 [1989, 299p. (Pertinent p.119-123), rus] 44-3551
All-Union Congress of Soil Scientists, 8th, Novosibirsk, Aug. 14-18, 1989. Summaries. Book 6 [1989, 290p., rus] 44-3552
- Kovaleva, B.N.**
Studies of the localization of plastic flow of metals at low temperatures [1990, p.96-101, rus] 44-4358
- Kovalick, W.M.**
Comparison of *in situ* and Landsat derived reflectance of Alaskan glaciers [1989, p.23-31, eng] 44-1531
- Kovbasiuk, V.V.**
Use of radar data to determine ice cover characteristics in the Sea of Okhotsk, winter 1983-1984 [1989, p.371-381, eng] 44-182
- Kover, D.J.**
Arctic/cold weather surface ship program [1989, p.303-313, eng] 44-3156
- Kowalski, D.**
Synoptic features of the severe winter 1986 at Arcotowski Station, King George Island, West Antarctica [1989, p.57-71, eng] 44-702
- Kowase, M.**
Comparative performance of various winter tires using two high-speed skid test vehicles [1989, p.215-220, jpn] 44-2881
- Kowata, H.**
Ice pond for use of winter coldness in agriculture—automatic ice making [1989, p.225-230, jpn] 44-2882
Ice pond for use of winter coldness in agriculture—long-term preservation of ice [1989, p.231-236, jpn] 44-2883
- Koyama, F.**
Applications of submerged burner for snow melting [1989, p.277-282, jpn] 44-2890
Suggestion for reorganization of high-speed submerged burner [1988, p.567-572, jpn] 44-2729
- Koyama, K.**
Anaerobic digestion of municipal sewage sludge in cold region [1986, p.343-347, jpn] 44-2478
- Koyanagi, Y.**
Effects of subcooling on melting on a vertical wall [1988, p.56-68, eng] 44-688
- Koza, S.M.**
Development of an analytical method for the determination of explosive residues in soil. Part 3. Collaborative test results and final performance evaluation [1989, 89p., eng] 44-3757
- Kozhaev, D.A.**
Avalanches and avalanche-prone regions in Chechen-Ingush ASSR [1989, p.3-10, rus] 44-1777
- Kozik, T.**
Analytical simulation of the composite ice wall [1989, p.174-180, eng] 44-1197
- Kozin, V.M.**
Modelling of flexural-gravitational waves in continuous ice cover [1989, 4p., eng] 44-3732
- Kozisek, L.**
Design and performance experience of foundations stabilized with thermosyphons [1990, p.365-370, eng] 44-3683
- Kozitskaia, L.T.**
Relic cryoxerophytic communities of the western Chukotski peninsula and their soils [1985, p.148-153, eng] 44-279
- Kozitskii, I.E.**
Calculating the breakup of a river ice cover [1989, p.17-28, rus] 44-4400
- Kozlov, A.N.**
Planning engineering surveys in the cryolithozone according to results of preliminary studies [1990, p.96-103, rus] 44-4537
- Kozlovskii, A.M.**
Distribution of icebergs in the South Pacific Ocean according to observations from the icebreaker *Vladivostok* [1989, p.81-84, rus] 44-2827
Giant and extensive ice and breccia fields in the Pacific and Atlantic oceans [1989, p.74-81, rus] 44-2826
Snow covered ice in the Pacific ice massif [1989, p.84-87, rus] 44-2828
- Koz'min, B.M.**
Recent geodynamics and seismicity in the eastern sector of the Soviet Arctic [1990, p.345-346, eng] 44-4105
- Kozo, T.L.**
Mesoscale effects on wind velocities, ocean currents and sea ice drift in the Beaufort Sea coastal ice zone [1988, p.183-200, eng] 44-1138
Mesoscale meteorology of the Norton Sound region [1988, p.163-181, eng] 44-1137
Wind-generated polynyas off the coasts of the Bering Sea islands [1990, p.126-132, eng] 44-3835
- Kozole, K.H.**
Use of dimethyl ether as a starting aid for methanol-fueled SI engines at low temperatures [1988, p.3.1079-3.1097, eng] 44-4247
- Krabill, W.B.**
Concurrent remote sensing of arctic sea ice from submarine and aircraft [1989, 20p., eng] 44-3376
Recent measurements of sea ice topography in the eastern Arctic [1990, p.132-136, eng] 44-3836
- Krakhmalev, V.I.**
Effect of preliminary deformation on the sensitivity of metastable austenitic steel to stress concentrations at cryogenic temperatures [1990, p.21-25, rus] 44-4342
- Krakovski, E.**
Operation testing and evaluation of the regional ice model [1988, p.221-227, eng] 44-1142
- Krantz, W.B.**
Patterned ground [1988, p.68-76, eng] 44-1764
- Krashchenko, V.P.**
Effect of ordered discreteness on the temperature dependence of strength characteristics of GTsK metals [1990, p.43-47, rus] 44-4347
- Krasiuk, V.S.**
Hydrometeorological support of winter navigation in the Antarctic [1989, p.85-87, eng] 44-1033
Hydrometeorological support to antarctic winter navigation [1988, p.124-127, rus] 44-101
- Krasnik, V.G.**
Drilling frozen ground with an instrument of extra-hard materials [1989, p.41-42, rus] 44-386
- Krasnovskii, B.M.**
Winter concreting under the conditions of industrialization of cast-in-place concrete [1985, p.347-353, eng] 44-1997
- Krasovskaia, T.M.**
Ecologic-geographic fundamentals of the background monitoring in the Soviet Trans-Polar regions [1990, p.255-262, eng] 44-4098
- Krass, M.S.**
Mathematical model of snowmelt and water percolation processes in snow and firn [1989, p.11-18, eng] 44-167
- Krasulin, I.D.**
To protect the environment of the Far North and build safe pipelines (field studies in Yamal) [1989, p.20-23, rus] 44-383
- Krebs, W.B.**
Diffusion on a fractal state space [1989, 39p., eng] 44-1225
- Kreider, J.R.**
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Present snow cover distribution and the intensity of glacier mass transfer at its bottom surface [1989, p.27-34, rus] 44-332
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Glaciers and glaciology of Alaska [1989, 61p., eng] 44-433
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Effect of phase conversion on viscosity of metastable steel for cryogenic purposes [1990, p.243-247, rus] 44-4391
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- Kröger, J.**
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Report on measurement of riverbed waves during snowmelt runoff [1987, p.423-428, jpn] 44-3517
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- Kudriavtseva, S.K.**
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Snow budgets stable, PR efforts up, survey shows [1989, p.40-46, 58, eng] 44-767
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Role of land ice and snow in climate [1989, p.17-28, eng] 44-2782
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Mesoscale monitoring of the soil freeze/thaw boundary from orbital microwave radiometry. Semiannual progress report [1988, 7p., eng] 44-892
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Electromagnetic soundings with a vertical magnetic dipole and low-frequency Schlumberger soundings on Campbell Glacier and at Gondwana Station [1989, p.455-481, eng] 44-3053
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Southern ocean circulation and global climate in the Middle Pleistocene (early Brunhes) [1989, p.67-83, eng] 44-2386
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- Kukko, H.**
Proceedings [1985, 361p. + appends., eng] 44-1971
RILEM recommendations for concreting in cold weather [1988, 183p., eng] 44-1052
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- Kukla, G.**
Cloud/cryosphere interactions. Final report Nov. 85-Oct. 88 [1989, 46p., eng] 44-995
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Snow melting system using a spring water in underground space [1986, p.606-610, jpn] 44-2506
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Science in Antarctica, Vol.8: Oceanography [1989, 137p., jpn] 44-210
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Kinetics of the crystallization of water in capillary-porous media according to data from a microcalorimeter and nuclear magnetic resonance [1989, p.36-41, rus] 44-2149
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Airborne passive microwave observations of arctic sea ice [1990, p.233-235, eng] 44-3857
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Fully automated system for simultaneous measurement of thermal conductivity and heat capacity from 4 to 300 K [1990, p.809-813, eng] 44-3907
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Sliding, but on which snow? [1990, p.9-12, fre] 44-3201
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Oceanographic and climatological atlas of Bristol Bay. Final report [1987, 192p., eng] 44-674
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- Lachance, J.**
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Depletion of H₂O₂ in a Greenland ice core: implications for oxidation of volcanic SO₂ [1990, p.45-48, eng] 44-4036
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Arctic data compilation and appraisal. Vol.14. Northwest Passage: physical geography—temperature, salinity, currents, water levels and waves. Revised and updated to include 1820 through 1986 [1987, 300p., eng] 44-1461
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Extremal analysis of flexural strength of ice and crack size distribution [1989, 106p., eng] 44-3108
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Sorption behavior of SO₂ on ice at temperatures between -30 C and -5 C [1989, p.1173-1176, eng] 44-1068
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Calculation of the effects of ice on the backscatter of a ground plane [1988, 55p., eng] 44-671
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Ice sublimation under forced convection. Determination of the global coefficient of mass transfer [1989, p.633-644, fre] 44-4417
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Canadian arctic marine transportation: present status and future requirements [1988, p.130-152, eng] 44-1122
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Spring runoff characteristics of the upper Yellow River [1989, p.383-391, chi] 44-3615
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Selecting parameters of the main cassette part of the anti-hail rocket "Crystal" [1989, p.97-104, rus] 44-873
- Lanzhou Institute of Glaciology and Geocryology**
Introduction to Lanzhou Institute of Glaciology and Geocryology, Academia Sinica [1988, 17p., eng] 44-3868
- Laperrière, F.**
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Glaciomarine sedimentation in epicontinental seas exemplified by the northern Barents Sea [1989, p.225-250, eng] 44-3937
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Environmental baseline studies of St. Mary's River near Neebish Island, Michigan, prior to proposed extension of navigation season, 1981. Great Lakes-St. Lawrence Seaway, Navigation Season Extension Program. Final report [1983, 346p., eng] 44-1062
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- Maes, M.A.**
Risk analysis methodology for mobile offshore units operating in ice-infested waters [1984, p.H-1-H-12, eng] 44-3457
- Maffett, A.L.**
Calibrated L-band terrain measurements and analysis program. Final report Apr 1984-Jan 1987 [1987, 106p., eng] 44-1233
Calibrated L-band terrain measurements and analysis program results. Final report Apr 1984-Jan 1987 [1988, 109p., eng] 44-725
- Magoon, L.B.**
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Surface topography of the Greenland ice sheet from satellite radar altimetry [1989, 105p. + 18 maps, eng] 44-2948
- Majurowicz, J.A.**
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North Pole 1983. History of its conquest and contemporary problems of maritime and air transportation [1987, 585p., eng] 44-596
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- Malysheva, G.N.**
Thermophysical basis for selecting methods of eliminating hydrated locks in gas pipelines [1989, p.128-132, rus] 44-2163
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Marketer constructs indoor bulk storage site for lubricants [1989, p.27-28, eng] **44-3250**
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- Marriott, R.T.**
Avalanche weather forecasting at the Northwest Avalanche Center, Seattle, Washington, U.S.A. [1990, p.57-66, eng] **44-3722**
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Energy and mass model of snow cover suitable for operational avalanche forecasting [1989, p.333-342, eng] **44-1894**
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- Maruyama, S.**
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- Maudina, M.I.**
Correlation of glacial deposits within the European USSR using lithological data [1989, p.179-185, rus] 44-1921
- Mauersberger, K.**
HCl/H₂O solid-phase vapor pressures and HCl solubility in ice [1990, p.4700-4705, eng] 44-3946
- Solubility and equilibrium vapor pressures of HCl dissolved in polar stratospheric cloud materials; ice and the trihydrate of nitric acid [1988, p.1507-1510, eng] 44-480
- Maunula, M.**
Numerical simulation of ice cover formation in rivers—Finnish River Ice Project [1988, p.253-267, eng] 44-254
- May, C.J.**
Compositional effects on the low temperature pumpability of engine oils [1987, p.7.79-7.87, eng] 44-1193
Factors affecting the low temperature pumpability of used engine oils [1987, p.7.298-7.306, eng] 44-1194
- Mayer, E.**
Type I isotherms for N₂ adsorption on vapor deposited amorphous solid water [1989, p.5207-5208, eng] 44-3620
- Mayer, I.**
Method of study and analysis of ice jam development [1989, p.179-188, eng] 44-2034
- Mayewski, P.A.**
1400-year oxygen isotope history from the Ross Sea area, Antarctica [1990, p.94-98, eng] 44-4169
Detailed glaciochemical investigations in southern Victoria Land, Antarctica—a proxy climate record [1988, p.68-69, eng] 44-1699
Dominion Range ice core, Queen Maud Mountains, Antarctica—general site and core characteristics with implications [1990, p.11-16, eng] 44-3716
Glaciochemical survey of the Summit region, Greenland [1990, p.186-190, eng] 44-4190
Ice-core record of atmospheric response to anthropogenic sulphate and nitrate [1990, p.554-556, eng] 44-4259
Ice-core records and ozone depletion—potential for a proxy ozone record [1988, p.64-68, eng] 44-1698
Northern Hemisphere volcanic chemistry record (1869-1984) and climatic implications using a South Greenland ice core [1990, p.176-182, eng] 44-4188
Recent increase in nitrate concentration of antarctic snow [1990, p.258-260, eng] 44-4038
Review of Central Asian glaciochemical data [1990, p.301-306, eng] 44-4214
- Maykut, G.A.**
Treatment of shortwave radiation and open water in large-scale models of sea-ice decay [1990, p.242-246, eng] 44-4202
- Maynard, N.G.**
Satellite ocean color studies of antarctic ice edges in summer and autumn [1990, p.9481-9496, eng] 44-4328
- Mayo, L.R.**
Advance of Hubbard Glacier and 1986 outburst of Russell Fiord, Alaska, U.S.A. [1989, p.189-194, eng] 44-572
Air temperature and precipitation at Wolverine Glacier, Alaska; glacier growth in a warmer, wetter climate [1990, p.191-194, eng] 44-4191
- Mazo, V.L.**
Instability and self-regulation of glacial areas [1989, p.3-25, rus] 44-331
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- Mazur, I.I.**
Energy saving methods of concrete heating as applied to winter construction [1985, p.331-338, eng] 44-1995
Introduction to engineering ecology [1989, 375p., rus] 44-3336
Problems of engineering ecology of the oil and gas industry and ways of their effective solution [1989, p.3-8, rus] 44-4506
Problems of the technology and organization of environmental protection during the construction of oil and gas industry facilities in the arctic regions. Review [1990, Var.p., rus] 44-3990
V.I. Vernadskiy's ideas on the current status of oil- and gas-system development and problems of ecological safety [1989, p.49-57, rus] 44-4511
- Mazur, P.**
Anomalous light scattering at the surface of growing ice crystals and thermodynamics of irreversible processes [1989, p.497-509, eng] 44-3693
- Mazzarino, G.**
Differential equation connected with the dendritic growth of crystals [1989, p.43-75, eng] 44-2395
- McAvoy, J.G.**
NAV-ICE/MARINE-VUE integration. Final report [1989, var.p., eng] 44-1835
Star Vue interactive assistance [1990, 26p. + appns., eng] 44-3947
- McCabe, G.J., Jr.**
Hydrologic effects of climate change in the Delaware River basin [1989, p.1231-1242, eng] 44-3114
- McCall, B.**
Iowa Department of Transportation weigh-in-motion [1989, p.286-295, eng] 44-1664
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Overview and summary of the proposed revisions to the Canadian Arctic Shipping Pollution Prevention Regulations [1990, p.U/1-U/8, eng] 44-3482
- McCarroll, D.**
"Striations" produced by catastrophic subglacial drainage of a glacier-dammed lake, Mjølkedalsbreen, southern Norway [1989, p.193-196, eng] 44-1544
Variability of soil development on preboreal moraine ridge crests, Breiseterdalen, southern Norway [1989, p.31-36, eng] 44-907
- McCarron, W.O.**
Foundation performance of gravity base structures [1990, p.1-8, eng] 44-2200
Response of a Beaufort Sea clay to monotonic and cyclic loading [1990, p.329-336, eng] 44-2243
- McClatchey, J.**
Mapping very low surface temperature in the Scottish Highlands using NOAA AVHRR data [1989, p.1519-1529, eng] 44-773
- McClellan, J.M.**
Ice-man cometh [1988, p.56-60, eng] 44-2095
- McClimans, T.**
Impact of ice on petroleum exploration in the Barents Sea [1988, p.195-206, eng] 44-3323
Impact of ice on petroleum exploration in the Barents Sea [1990, p.119-128, eng] 44-4078
- McClung, D.M.**
Effects of structure boundary conditions and snow-pack properties on snow-creep pressures [1989, p.175-179, eng] 44-569
Extreme avalanche run-out: data from four mountain ranges [1989, p.180-184, eng] 44-570
Observations on avalanche at Rogers Pass, British Columbia, Canada, in 1989 [1989, p.37-48, jpn] 44-2633
Snow creep pressures: effects of structure boundary conditions and snowpack properties compared with field data [1989, p.33-47, eng] 44-828
- McConnell, P.M.**
Prediction of fuel freezing in airplane fuel tanks of arbitrary geometry—Pts. 1 and 2 [1986, p.20-23, 2-6, eng] 44-1334
- McConnell, R.**
Ice-motion tracking system at the Alaska SAR facility [1990, p.44-54, eng] 44-3621
- McCool, D.K.**
Crop management effects on runoff and soil loss [1990, p.171-176, eng] 44-2980
Field and laboratory techniques for frozen and thawing soil [1990, p.271-278, eng] 44-2994
Freeze thaw effects on soil strength [1990, p.70-76, eng] 44-2968
Frost data in the Pacific Northwest [1990, p.286-289, eng] 44-2996
Hydraulic erosion resistance of thawing soil [1987, 29p., eng] 44-3931
- McCormick, G.C.**
Models for the orientation of hydrometeors [1989, p.1301-1309, eng] 44-3102
- McCormick, M.P.**
Lidar detection of leads in arctic sea ice [1990, p.119-123, eng] 44-3833
Measurements of size and composition of particles in polar stratospheric clouds from infrared solar absorption spectra [1989, p.16.481-16.491, eng] 44-1625
- McCoy, J.D.**
Theory of freezing: the inhomogeneous Ornstein-Zernike equation [1989, p.87-100, eng] 44-262
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Calcium magnesium acetate and sodium chloride as highway deicing salts [1989, p.24-28, eng] 44-2013
- McCullough, D.**
NOGAP B.6: Vol.1: Beaufort Sea current measurements, March-August 1987 [1988, 19p., eng] 44-1475
NOGAP B.6: Vol.2: physical data collected in the Beaufort Sea, March-June 1987 [1988, 157p., eng] 44-1509
NOGAP B.6: Vol.3: Beaufort Sea current measurements, September 1987-March 1988 [1988, 37p., eng] 44-1510
- McCumber, M.**
Ice-water saturation adjustment [1989, p.231-235, eng] 44-264
- McDevitt, P.G.**
Performance of the Trans-Alaska Pipeline System fuel gas supply pipeline [1990, p.389-396, eng] 44-3686
- McDonald, J.E.**
Repair, evaluation, maintenance, and rehabilitation research program. Rehabilitation of navigation lock walls: case histories. Final report [1987, 317p., eng] 44-1053
- McDonald, J.S.B.**
Mass transfer during ice particle collisions in planetary rings [1989, p.167-179, eng] 44-3969
- McDonnell, J.J.**
Surface and subsurface water contributions during snowmelt in a small Precambrian Shield watershed, Muskoka, Ontario [1987, p.257-266, eng] 44-1867
- McDowell, J.S.**
Other cold war [1990, p.2-7, eng] 44-2436
- McFadden, T.**
Kilpisjärvi project: case study of cold-regions research in Finland [1990, p.69-84, eng] 44-4488
Moisture accumulation in insulated walls in cold regions [1989, p.73-83, eng] 44-214
- McGehee, R.M.**
Layered-capacitor method for dielectric bridge measurements; algorithms for inversion and parameter fitting; documentation, verification, data analysis. Final report, 15 Nov. 83-30 Oct. 86 [1987, 178p., eng] 44-1272
- McGilvary, W.R.**
Dynamic analysis of a floating ice sheet undergoing vertical indentation [1990, p.195-203, eng] 44-2224

- Vertical lifting and penetration of floating ice sheets with cylindrical indentors [1989, p.104, eng] 44-3141
- McGuffey, V.C.**
Environmental considerations [1990, p.83-91, eng] 44-4268
- McGurk, B.J.**
Evaluation of methods for measurement of snowfall and collection of snow for chemical analysis. Final report 1986-87 [1989, 137p., eng] 44-880
Monitoring atmospheric deposition in California's Sierra Nevada: a comparison of methods [1989, p.71-79, eng] 44-3036
Snowpack changes and water release at a low elevation site in the Sierra Nevada [1989, p.141-144, eng] 44-517
- McIntosh, R.E.**
Millimeter-wave backscatter characteristics of multilayered snow surfaces [1990, p.693-703, eng] 44-3695
- McIntyre, N.**
Topographic and surface characteristics of the Larsen Ice Shelf, Antarctica, using satellite altimetry [1989, p.299-310, eng] 44-1890
- McKay, C.P.**
Early environment and its evolution on Mars: implications for life [1989, p.189-214, eng] 44-1768
Grain metamorphism in polar nitrogen ice on Triton [1989, p.965-968, eng] 44-365
Ice thickness changes on Lake Hoare, southern Victoria Land, Antarctica [1989, p.235-236, eng] 44-658
Sand/ice interactions and sediment deposition in perennially ice-covered antarctic lakes [1989, p.237-240, eng] 44-659
- McKay, D.W.**
ICEMANd: microwave detection of ultra-high energy neutrinos in ice [1989, p.52-60, eng] 44-2072
- McKay, J.R.**
Ice-wedge cracks, western Arctic coast [1989, p.365-368, eng] 44-1873
- McKee, A.**
Boston Glacier research natural area, 6 [1978, 16p., eng] 44-1213
- McKee, T.B.**
Interannual variations in snowpack in the Rocky Mountain region [1989, p.21-30, eng] 44-500
- McKenna, C.M.**
Reference guide for building diagnostics equipment and techniques [1989, 64p., eng] 44-777
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Uncertainty of summer ice drift forecasts [1988, p.287-295, eng] 44-1146
- McKim, H.L.**
Interfacing geographic information system data with real-time hydrologic forecasting models [1989, p.857-861, eng] 44-425
Multiband imaging systems [1990, 10p., eng] 44-4058
Remote sensing and water resources [1987, p.186-190, eng] 44-611
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Use of SPOT HRV data in the Corps of Engineers dredging program [1988, p.1295-1299, eng] 44-435
- McKinnon, W.B.**
Impact jetting of water ice, with application to the accretion of icy planetesimals and Pluto [1989, p.1237-1240, eng] 44-1847
- McKnight, D.M.**
Chemical quality of water and the hydrologic cycle [1987, 382p., eng] 44-76
- McKyes, E.**
Agricultural engineering soil mechanics [1989, 292p. (Per-tinent p.244-258), eng] 44-3325
- McLaren, A.S.**
Arctic submarine: its evolution and scientific and commercial potential [1987, p.329-341, eng] 44-603
Could arctic ice be thinning [1990, p.762, eng] 44-4034
Periodicities and keel spacings in the under-ice draft distribution [1990, p.156-160, eng] 44-3841
Reversals of the Beaufort Gyre sea ice circulation and effects on ice concentration in the Canada Basin [1990, p.185-188, eng] 44-3848
Seasonal variations of sea ice motion in the Transpolar Drift Stream [1989, p.811-814, eng] 44-363
Under-ice thickness distribution of the Arctic Basin as recorded in 1958 and 1970: a comparison [1988, p.133-149, eng] 44-1135
- McLean, M.**
Evaluation of weld-zone corrosion of shipbuilding steel plates for use in the arctic environment [1988, p.311-321, eng] 44-1024
- McLeod, N.W.**
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Study of flow boiling heat transfer with refrigerant mixtures [1989, p.1751-1764, eng] 44-666
- McMartin, I.**
Late Wisconsinan deglaciation of the area south of Dolphin and Union Strait, northern District of Mackenzie [1990, p.55-66, eng] 44-4492
- McMillan, J.C.**
Error sensitivity model for Doppler positioning using transit satellites [1989, 132p., eng] 44-3373
- McMillan, J.E.**
Low-temperature performance of fast photomultipliers [1989, p.377-382, eng] 44-119
- McNay, D.E.**
Laminar flow control leading edge glove flight test article development. Final report [1984, 112p., eng] 44-1405
- McNeillan, T.**
Geotechnical and cone penetrometer investigation of north-west Chukchi Sea. Final report [1986, 200p., eng] 44-884
- McPhee, M.G.**
Comparison of diode-laser-doppler velocimeter and medium resolution turbulence cluster measurements in MIZEX 84 [1985, 24p., eng] 44-1104
Small-scale processes [1990, p.287-334, eng] 44-3980
Using the free-drift force balance to estimate drag coefficients and ice thickness [1990, p.281-284, eng] 44-3865
- McSaveney, M.J.**
Sedimentation in proglacial Ivory Lake, Southern Alps, New Zealand [1990, p.26-42, eng] 44-2661
- McShane, D.W.**
Numerical study of topographically steered flows in the Fram Strait [1989, 44p., eng] 44-1521
- McSween, H.Y., Jr.**
Water and the thermal evolution of carbonaceous chondritic parent bodies [1989, p.244-280, eng] 44-3343
- McTaggart, K.A.**
Probabilistic evaluation of design iceberg collision [1990, p.85-101, eng] 44-4489
- McVane, G.**
Evaluation of the improved OV-ID anti-icing system. Phase 2. Final report 6 Mar.-23 Mar. 89 [1989, 61p., eng] 44-1598
- Meador, R.W.**
Cold weather operational features of the V-22 tiltrotor aircraft [1989, p.56-84, eng] 44-3138
- Mears, A.I.**
Extreme avalanche run-out: data from four mountain ranges [1989, p.180-184, eng] 44-570
Regional comparisons of avalanche-profile and runoff data [1989, p.283-287, eng] 44-1267
- Meckler, G.**
Cold air distribution options with ice storage [1989, p.1194-1205, eng] 44-445
- Medlin, L.K.**
Some *Nitzschia* and related diatom species from fast ice samples in the Arctic and Antarctic [1990, p.451-479, eng] 44-3992
- Medvedskii, R.I.**
Simultaneous use of integral and finite differential methods in solving problems of freezing-thawing [1989, p.108-114, rus] 44-2160
- Meel, G.A.**
CO₂ climate sensitivity and snow-sea-ice albedo parameterization in an atmospheric GCM coupled to a mixed-layer ocean model [1990, p.283-306, eng] 44-4278
- Meese, D.A.**
Chemical and structural properties of sea ice in the southern Beaufort Sea [1989, 134p., eng] 44-2630
Chemical and structural properties of sea ice in the southern Beaufort Sea [1990, p.32-35, eng] 44-3813
Dominion Range ice core, Queen Maud Mountains, Antarctica—general site and core characteristics with implications [1990, p.11-16, eng] 44-3716
- Meier, K.D.**
Studies on periglacial landscape formation in Finnmark (northern Norway) [1987, 298p., ger] 44-2069
- Meier, M.**
Reduce uncertainty in projection of future sea-level change due to ice wastage. Progress report, August 1988-April 1989 [1989, 5p., eng] 44-993
- Meier, M.F.**
Glaciers and glaciology of Alaska [1989, 61p., eng] 44-433
Modeling of meltwater infiltration in subfreezing snow [1990, p.1001-1012, eng] 44-4129
Reduced rise in sea level [1990, p.115-116, eng] 44-1714
Variability of glacier mass balances in western North America [1989, p.365-374, eng] 44-2942
- Meijer, S.**
Computation of rime ice accretion on airfoils [1987, 15p., eng] 44-1102
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Influence of strong winds on snow distribution and avalanche activity [1989, p.195-201, eng] 44-573
- Melack, J.M.**
Effects of spatial and temporal variation, in snow melt on nitrate ion and sulfate ion pulses in melt waters within an alpine basin [1989, p.285-288, eng] 44-591
Evaluation of methods for measurement of snowfall and collection of snow for chemical analysis. Final report 1986-87 [1989, 137p., eng] 44-880
- Melent'ev, V.V.**
Microwave emission properties of various types of underlying surfaces at subzero temperatures [1989, p.67-70, rus] 44-180
- Mellen, R.H.**
Arctic ice attenuation model study [1987, 36p., eng] 44-851
Low frequency attenuation in the Arctic Ocean [1986, p.387-395, eng] 44-1744
- Melling, H.**
Arctic data compilation and appraisal. Vol.1. Beaufort Sea: physical geography—temperature, salinity, currents and water levels [1982, 279p., eng] 44-1436
Arctic data compilation and appraisal. Vol.12. Beaufort Sea and Amundsen Gulf: physical geography—temperature, salinity, currents, water levels, and waves. Revised and updated to include 1914 through 1986 [1987, 459p., eng] 44-1460
Temperature and salinity measurements in the Northwest Passage, Vol.2, Mar. 1983 [1987, 152p., eng] 44-200
Temperature and salinity measurements in the Northwest Passage, Vol.3, Mar.-Apr. 1984 [1987, 604p., eng] 44-201
- Melloh, R.A.**
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- Mellor, M.**
Airfields on antarctic glacier ice [1989, 97p., eng] 44-3383
First impressions of the comet drilling problem [1989, p.229-232, eng] 44-2801
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- Mel'nikh, V.I.**
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- Mel'nikov, V.P.**
Electromagnetic methods of studying permafrost: a review [1988, 46p., rus] 44-1493
Engineering-geocryological safeguarding of the building of structures. Collection of papers [1989, 135p., rus] 44-2144
Physicochemical processes in the cryolithozone [1989, p.3-8, rus] 44-2052
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- Melville Shipping Ltd.**
Experimentation with various methods of de-icing and anti-icing for ships [1989, 64p. + appends., eng] 44-744
- Meng, G.L.**
Compressive properties of sea ice in a harbour in Liaodong Gulf [1990, p.259-263, eng] 44-2233
Plane strain fracture toughness K(IC) of sea ice [1989, p.338-342, chi] 44-1240
Study of design criteria of level ice compressive strength in the north of Bohai Sea [1990, p.289-292, eng] 44-2237
- Menzies, J.**
Drumlins—products of controlled or uncontrolled glaciodynamic response [1989, p.151-158, eng] 44-118
Evidence of cryostatic desiccation processes associated with sand intraclasts within diamictons, southern Ontario, Canada [1990, p.684-693, eng] 44-4413
- Merinov, G.N.**
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Loads on shafts of river icebreakers [1986, p.31, rus] 44-330

- Merry, C.J.**
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- Meshida, S.**
Meteorological observations at Syowa Station in 1985 by the 26th Japanese Antarctic Research Expedition [1989, p.191-219, jpn] **44-1470**
- Meshkov, I.U.I.A.**
Physical and mechanical model of cold brittleness [1990, p.141-146, rus] **44-4368**
- Messer, A.C.**
Alternative approach to the study of pedogenic chronosequences [1989, p.221-229, eng] **44-3005**
- Metcalfe, J.R.**
Canadian participation in the WMO solid precipitation measurement intercomparison [1988, p.199-207, eng] **44-249**
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Continuous electrochemical monitoring of snow melt in Utah, U.S.A. [1988, p.169-178, eng] **44-246**
Wet deposition and snowpack monitoring operations and quality assurance manual [1987, 139p., eng] **44-1273**
- Metcalfe, J.R.**
Development and performance of a Canadian automatic snow depth sensor [1988, p.137-144, eng] **44-243**
- Metz, P.D.**
Potential of slush ice district cooling [1987, p.449-459, eng] **44-18**
- Metzger, A.E.**
Identification of lunar rock types and search for polar ice by gamma ray spectroscopy [1990, p.449-460, eng] **44-1908**
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Nearshore ice conditions from radar data, Point Barrow area, Alaska [1989, 43p., eng] **44-1829**
- Meyer, A.H.**
Evaluation of the 4-cycle magnesium sulfate soundness test. Final report [1987, 65p., eng] **44-720**
- Meyer, F.G.**
"Cloudless" ice crystal precipitation in the polar regions [1989, p.80-83, eng] **44-4041**
- Meyer, J.R.**
Bering Sea winter ice edge data collection aboard USCGC Polar Sea, Vol.3. Propeller-ice loads. Draft report Apr.-Aug. 86 [1986, 350p., eng] **44-883**
Navarin Basin and ice edge data collection aboard USCGC Polar Sea, Vol.1. Environmental data, March/April 1985 [1986, 487p., eng] **44-1075**
Navarin Basin and ice edge data collection aboard USCGC Polar Sea, Vol.2. Ice milling data, March/April 1985 [1986, 215p., eng] **44-1076**
Navarin Basin and ice edge data collection aboard USCGC Polar Sea, Vol.3. Field study of personnel evacuation and survival from arctic class ships, March/April 1985 [1986, 88p., eng] **44-1077**
- Meyer, M.**
Ecological and physiological investigations in continental antarctic cryptogams. I. Vegetation pattern and its relation to snow cover on a hill near Casey Station, Wilkes Land [1990, p.209-220, eng] **44-4491**
- Meyer, R.R.**
Laminar flow integration: flight tests status and plans [1986, p.485-518, eng] **44-1406**
- Mezentsev, V.S.**
History of the design of hydroeconomic measures in Siberia [1989, p.66-71, rus] **44-1038**
- Mi, D.S.**
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Synopsis of sketch map of Landsat image in the Karakoram Mountains [1988, p.21-22, chi] **44-631**
- Mingkhov, S.M.**
Antarctica: past and future glaciations [1989, 160p., rus] **44-230**
Antarctica: past and future glaciations [1989, 159p., rus] **44-4337**
- Miokan'ki, G.B.**
Apparatus and results of a study on the ice-forming capacity of anti-hail devices in a clear atmosphere [1989, p.115-121, rus] **44-875**
- Michaelsen, J.**
Recording of interannual climatic change by high-resolution natural systems: tree-rings, coral bands, glacial ice layers, and marine varves [1989, p.1-14, eng] **44-2941**
Spatial and temporal variation on net snow accumulation in a small alpine watershed, Emerald Lake basin, Sierra Nevada, California, U.S.A. [1989, p.56-63, eng] **44-549**
- Michaud, M.**
Absolute vibrational excitation cross sections for slow-electron (1-18eV) scattering in solid H₂O [1987, p.4684-4699, eng] **44-1819**
Opening of new decay channels for core-excited resonances [1987, p.645-648, eng] **44-1820**
- Michaud, Y.**
Frost bursting: a violent expression of frost action in rock [1989, p.2075-2080, eng] **44-2272**
Mechanisms of bedrock frost heave in permafrost regions [1990, p.125-130, eng] **44-3653**
- Michel, B.**
Development of aligned columnar sea ice: a field investigation [1989, p.217-223, eng] **44-1549**
Effect of fluid flow on the development of preferred orientations in sea ice: laboratory experiments [1989, p.153-161, eng] **44-3098**
Experimental study of the brittle behaviour of iceberg ice [1988, p.11-19, eng] **44-1125**
- Michel, F.A.**
Isotopic composition of ice-wedge ice in northwestern Canada [1990, p.5-9, eng] **44-3636**
- Michel, J.**
Modern clastic depositional systems of Southcentral Alaska [1989, 42p., eng] **44-461**
- Mickelson, D.M.**
Hydrogeologic and geotechnical properties of pleistocene materials in north-central Wisconsin [1988, 66p., eng] **44-1058**
- Mickiewicz, D.**
Production of the sand-aggregate concrete at freezing temperature [1985, p.223-230, eng] **44-1985**
- Mickle, R.E.**
Boundary layer ozone depletion during AGASP-II [1989, p.2443-2449, eng] **44-2257**
- Middtun, L.**
Climatic variations in the Barents Sea [1990, p.176-191, eng] **44-4087**
- Miess, J.C.**
Evaluation of the improved OV-ID anti-icing system. Phase 2. Final report 6 Mar.-23 Mar. 89 [1989, 61p., eng] **44-1598**
- Migirenko, G.S.**
Technical and ecological aspects of transportation in the North [1989, p.107-113, rus] **44-4520**
- Migliachenko, V.P.**
Subgrade freezing rate [1989, p.91-95, rus] **44-1502**
- Mikailov, V.E.**
Increasing the strength of welded structures for the North [1989, 220p., rus] **44-1008**
- Mikami, S.**
Method for the evaluation of soundness and remaining life of structures [1985, p.208-212, jpn] **44-2317**
- Mikami, T.**
Formation process of snow drifts around porous-plate-type snow fences [1986, p.301-306, jpn] **44-2473**
Study on frost prevention in road tunnels - simplified design method for determining thickness of insulator [1989, p.603-608, jpn] **44-2921**
- Mikhailov, A.V.**
Improving the prevention of icing of asphalt-concrete pavements [1987, p.9-11, rus] **44-318**
- Mikhailov, V.E.**
Effect of low temperatures and hydrogen on slow destruction of welded joints [1990, p.153-157, rus] **44-4371**
Effect of stress concentration on technological strength of welded joints of low-alloy high-strength steel [1990, p.150-153, rus] **44-4370**
- Mikhailchenko, O.A.**
Formation of frozen-ground conditions in the foundations of buildings and oil field structures during operations [1989, p.72-79, rus] **44-2155**
- Mikhalev, V.N.**
Features of mass transfer of flat-summit glaciers of interior Tien Shan [1989, p.86-92, rus] **44-341**
- Mikhalev, O.I.**
Crystallization of water in cooled solutions caused by heating the solutions at rates exceeding the cooling rate [1987, p.1656-1658, rus] **44-2425**
- Mikhlin, A.E.**
Energy-active zones: conceptual basis. Pt. 1 [1989, 239p., rus] **44-2380**
- Milano, V.R.**
Hull forms for U.S. Navy surface ship ice transit [1989, p.314-370, eng] **44-3157**
- Milch, S.**
R&D in arctic technology: a Norwegian outlook [1989, p.59-63, eng] **44-129**
- Miles, M.W.**
Lidar-derived particle concentrations in plumes from arctic leads [1990, p.9-12, eng] **44-4151**
Lidar detection of leads in arctic sea ice [1990, p.119-123, eng] **44-3833**
- Miles, P.R.**
Evidence of glacial seismic events in the acoustic environment of humpback whales [1988, p.95-108, eng] **44-862**
- Miley, W.G.**
Prediction of flexible pavement layer moduli from Dynaflect and FWD deflections [1989, p.245-277, eng] **44-978**
- Miller, C.E.**
Effects of freezing on toxicity of sediments contaminated with DDT and endrin [1989, p.883-891, eng] **44-1205**
- Miller, D.L.**
Pile settlement in saline permafrost—a case history [1990, p.371-378, eng] **44-3684**
- Miller, G.H.**
Denudation rates in the Arctic estimated from lake sediments on Spitsbergen, Svalbard [1989, p.153-168, eng] **44-2387**
- Miller, J.D.**
Changes in soil and stream hydrochemistry during periods of spring snowmelt at a pristine site in mid-Norway [1989, p.321-337, eng] **44-267**
- Miller, J.H.**
Phase and travel-time variability of adiabatic acoustic normal modes due to scattering from a rough sea surface, with applications to propagation in shallow-water and high-latitude regions [1989, 9p., eng] **44-996**
- Miller, L.**
GEOSAT altimeter geophysical data record user handbook [1987, 35p., eng] **44-1230**
- Miller, R.C.**
Atlas of oceanographic information for Norton Sound, Alaska. Final report [1987, 143p., eng] **44-679**
- Miller, R.D.**
Hydraulic conductivity and unfrozen water content of air-free frozen silt [1990, p.323-329, eng] **44-2646**
- Miller, T.L.**
Evaluation of icing drag coefficient correlations applied to iced propeller performance prediction [1987, p.6107-6117, eng] **44-1192**
- Miller, T.P.**
Road log from Yukon crossing (mile 56) to south fork Koyukuk River (mile 156.2) [1989, p.59-73, eng] **44-429**
- Mills, G.F.**
Wetlands of subarctic Canada [1988, p.55-96, eng] **44-1365**
- Mills, R.H.**
Gas and water permeability of concrete for reactor buildings. Small specimens [1986, 77p., eng] **44-1059**
- Milner, A.M.**
Stream development in Glacier Bay National Park, Alaska, U.S.A. [1989, p.350-363, eng] **44-2008**
- Minagawa, I.**
Phase transition of ice Ih-XI [1990, p.1676-1685, eng] **44-3971**
- Minatlov, G.P.**
Study on methods to preserve permafrost in bridge pier foundations on the Baykal-Amur railroad [1990, p.121-129, rus] **44-4310**
Temperature regime of permafrost in the foundation and body of high embankments along the Amur [1990, p.146-153, rus] **44-4313**
- Minato, K.**
Afforestation at the full-depth avalanche site [1986, p.290-294, jpn] **44-2471**
- Mindess, S.**
Effect of early freezing on permeability of cement paste [1989, p.119-132, eng] **44-686**
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Evaluation of crack resistance in electric-welded pipes with surface defects in the weld [1990, p.146-150, rus] **44-4369**
- Mineno, H.**
Step frequency radar experiments on the antarctic sea ice [1989, p.127-132, eng] **44-1810**
- Minina, E.A.**
Geomorphological criteria for the correlation of moraines of various ages from the mountains of Central Asia and Southern Siberia [1989, p.78-85, rus] **44-2050**
Pleistocene glaciations of the Altai-Sayan region: correlation and reconstruction [1989, p.217-223, rus] **44-1925**
- Minnick, P.V.**
Arctic marine transportation program, 1979 to 1986. Technical summary [1988, Var.p., eng] **44-3407**
Design method for icebreaker hull loads due to level icebreaking [1990, p.O-1-O-14, eng] **44-3477**
- Minsk, D.**
SHRP snow, ice contracts may aid snowfighters [1989, p.47-48, eng] **44-768**
- Mirchink, I.M.**
Present concept of the central Arctic geology and mineral resources [1990, p.279-285, eng] **44-4099**
- Mironov, V.A.**
Efficiency of using single-tube cooling devices in bridge construction on the Baykal-Amur railroad [1990, p.113-120, rus] **44-4309**
Study on methods to preserve permafrost in bridge pier foundations on the Baykal-Amur railroad [1990, p.121-129, rus] **44-4310**

- Mishakov, S.L.**
Calculated and experimental determination of ultimate loads for fractured parts at low temperatures [1990, p.114-119, rus] 44-4362
- Mis'ko, V.I.**
Effect of heat treatment, chemical composition and anticorrosive coatings on the threshold of cold brittleness of structural steels [1990, p.33-38, rus] 44-4345
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Triaxial compression tests on saline ice [1986, p.148-153, jpn] 44-2456
- Mitchell, D.L.**
Mass-dimensional relationships for ice particles and the influence of timing on snowfall rates [1990, p.153-163, eng] 44-3419
- Mitnik, L.M.**
Use of radar data to determine ice cover characteristics in the Sea of Okhotsk, winter 1983-1984 [1989, p.371-381, eng] 44-182
- Mitra, S.K.**
Laboratory study of the efficiency with which aerosol particles are scavenged by snow flakes [1990, p.1247-1254, eng] 44-4478
Wind tunnel and theoretical study of the melting behavior of atmospheric ice particles. IV: Experiment and theory for snow flakes [1990, p.584-591, eng] 44-3284
- Mitrovica, J.X.**
Pleistocene deglaciation and the global gravity field [1989, p.13,651-13,671, eng] 44-413
- Mitsushashi, H.**
Study on the determination of external forces for designing buildings at Showa Station: design frequencies of wind velocity [1984, p.39-40, eng] 44-1676
- Mitsushashi, R.**
Development of an advanced snow search radar system [1989, p.569-573, jpn] 44-2918
Experimental results of 3D objects using under snow radar [1987, p.168-172, jpn] 44-2535
High speed snow search radar system [1988, p.142-146, jpn] 44-2674
- Mitsutake, T.**
Study of titanium lining method for snow gutter [1989, p.295-300, jpn] 44-2893
- Miura, S.**
Climates that cause frost shattering of stone objects [1988, p.205-216, eng] 44-3219
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Fundamental study on standard design methods of snow-conveyance gutter systems and snow-melting gutter systems [1989, p.239-251, jpn] 44-2353
- Miyagawa, M.**
Study on fracture modes and ice loads of flat ice plates [1987, p.333-338, jpn] 44-2548
- Miyamoto, I.**
Road traffic information system in winter on the route 230 [1988, p.646-652, jpn] 44-2738
- Miyamoto, S.**
Study on snow melting methods in Hokkaido [1989, p.177-182, jpn] 44-2876
- Miyares, P.H.**
Development of an analytical method for the determination of explosive residues in soil. Part 3. Collaborative test results and final performance evaluation [1989, 89p., eng] 44-3757
Liquid chromatographic method for determination of extractable nitroaromatic and nitramine residues in soil [1989, p.890-899, eng] 44-2345
Salting-out solvent extraction for preconcentration of neutral organic solutes from water [1990, p.1355-1356, eng] 44-3922
- Miyashita, T.**
Example of very-short-term prediction experiments of snowfall in Sapporo City [1985, p.480-485, jpn] 44-2339
- Miyoshi, R.**
Research and development of electrical equipment applied for snow removal (No.2) [1989, p.535-540, jpn] 44-2911
Research & development of electrical equipment applied snow-removal (for residential and/or medium store) [1988, p.360-365, jpn] 44-2704
- Mizajski, A.**
Diversity of the valley natural environment in the arctic region, Ebbadalen in Olav V Land, central Spitsbergen [1989, p.443-456, eng] 44-3062
- Mizote, S.**
Properties of concrete at low temperature [1986, p.519-524, jpn] 44-2493
- Mizumoto, N.**
Long term compressive strength and frost resistance of concrete placed in the coldest season [1988, p.502-507, jpn] 44-2718
Study on inner thermal activity of concrete under low temperature [1988, p.508-511, jpn] 44-2719
- Mizuno, M.**
Radar observation of snowfall [1986, p.55-60, jpn] 44-2446
- Mizuno, Y.**
Creep experiment of polycrystalline ice under hydrostatic pressure [1988, p.1-13, jpn] 44-727
Crystal growth in deformed polycrystalline ice during stress relaxation [1989, p.1-12, jpn] 44-3122
- Experimental study on measures (air bubble method) against freezing in ports [1989, p.223-228, jpn] 44-3633
Experimental study on the resistance to sliding of breakwaters [1988, p.671-681, eng] 44-1182
Problems on freezing at harbors in Hokkaido [1988, p.277-282, jpn] 44-2694
- Mizuochi, N.**
Fundamental study on standard design methods of snow-conveyance gutter systems and snow-melting gutter systems [1989, p.239-251, jpn] 44-2353
- Mizushima, T.**
Countermeasures against frost heave on national highways [1989, p.63-68, jpn] 44-3565
Experiment on improving frost heave test methods [1987, p.129-134, jpn] 44-3516
Investigative report on observation characteristics of radar rain and snow gages (Part 2) [1989, p.5-10, jpn] 44-3522
On-site studies to select methods of pavement repair [1989, p.57-62, jpn] 44-3564
Survey of freezing depth throughout Hokkaido [1987, p.123-128, jpn] 44-3515
- Mizutani, K.**
Model tests on inner pressure fluctuation in caisson due to freezing [1989, p.416-420, jpn] 44-2908
- Mochizuki, M.**
Artificial permafrost storage harnessed cold climate using heat pipe [1989, p.237-241, jpn] 44-2884
Artificial permafrost storage harnessed cold climate using heat pipes [1988, p.525-529, jpn] 44-2721
Heat pipe road heating system by using a hot spring waste water [1988, p.387-392, jpn] 44-2708
Local road heating for the slope intersection [1989, p.189-194, jpn] 44-2878
Low temperature storage by means of heat pipe [1986, p.409-412, jpn] 44-2480
Low temperature storage by means of heat pipe, Pt.2 [1987, p.22-26, jpn] 44-2528
Snow melting system for the roof using heat pipes [1986, p.585-590, jpn] 44-2503
- Mochizuki, Y.**
Solidification of supercooled liquid droplets—aqueous solution of NaCl [1985, p.83-98, eng] 44-1336
Supercooling solidification of liquid droplets; aqueous solution of NaCl [1984, p.37-42, jpn] 44-1326
- Moffatt, R.L.**
Method of estimating flood-frequency parameters for streams in Idaho [1981, 99p. + maps, eng] 44-824
- Mogawer, W.S.**
Evaluation of effects of deicing additives on properties of asphalt mixtures [1990, 304p., eng] 44-3268
- Mogensen, O.**
Hull girder minimum section modulus of large merchant ice breakers [1984, p.C/1-C/8, eng] 44-3452
- Molisev, V.I.**
Thermophysical properties of sea ice [1988, 258p., rus] 44-1402
- Molnar, O.I.**
Introduction to engineering ecology [1989, 375p., rus] 44-3336
V.I. Vernadskiy's ideas on the current status of oil- and gas-system development and problems of ecological safety [1989, p.49-57, rus] 44-4511
- Molgaard, J.**
Study of the friction of ice [1989, 19p., eng] 44-3183
- Moline, G.**
Electromagnetic studies on the Siple Coast, 1987-1988 [1988, p.56-58, eng] 44-1692
- Möller, N.**
Prediction of mineral solubilities in natural waters: a chemical equilibrium model for the Na-K-Ca-Mg-Cl-SO₄-H₂O system at temperatures below 25 °C [1990, p.575-590, eng] 44-3363
- Möller, S.**
Macromodel for road surface conditions during wintertime: initial results [1989, 42p. + ap., swe] 44-3200
- Molnar, I.**
Model study of a floating ice barrier [1989, p.189-198, eng] 44-2035
- Molnau, M.**
Comparison of runoff occurring on frozen and unfrozen soils [1990, p.279-285, eng] 44-2995
Frost data in the Pacific Northwest [1990, p.286-289, eng] 44-2996
Frozen soil impacts on agricultural, range, and forest lands - an introduction [1990, p.1-3, eng] 44-2959
- Molnia, B.P.**
Glacial-marine sedimentation [1989, 127p., eng] 44-2939
Glacimarine sedimentary processes, facies and morphology of the south-southeast Alaska shelf and fjords [1989, p.359-390, eng] 44-3942
View through ice: are unusual airborne radar backscatter features from the surface of the Malaspina Glacier, Alaska, expressions of subglacial morphology [1989, p.701-710, eng] 44-3714
- Molot, L.A.**
Factors affecting alkalinity concentrations of streamwater during snowmelt in central Ontario [1989, p.1658-1666, eng] 44-997
- Molyneux, D.**
Recent developments in model experiment techniques for large icebreakers [1990, p.E/1-E/11, eng] 44-3468
- Molyneux, W.D.**
Self-propulsion experiments for icebreakers in ice and open water [1989, p.326-331, eng] 44-3024
- Momiji, K.**
Report on measurement of riverbed waves during snowmelt runoff [1987, p.423-428, jpn] 44-3517
- Monaghan, M.C.**
Origin of non-sea-salt sulphate in the Mount Logan ice core [1990, p.245-248, eng] 44-1849
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Frost growth and heat transfer for a row of vertical cylindrical tubes located outdoors—general trends [1988, p.963-972, eng] 44-1375
- Monin, A.S.**
Models of ocean processes [1989, 365p., rus] 44-2282
- Montemayor, A.F.**
Low-temperature pumpability of U.S. Army diesel engine oils [1989, 18p., eng] 44-2857
- Moody, D.S.**
Final letter report, comparison test (CPT) of the M973 small unit support vehicle (SUSV) [1989, 48p. + append., eng] 44-1846
Technical feasibility test of field burner unit using diesel fuel [1989, 33p. + append., eng] 44-474
- Moore, H.D.**
Active patterned ground at sea level, Fourchu, Nova Scotia, Canada [1989, p.425-432, eng] 44-2012
Glacial-process model: the role of spatial and temporal variations in glacier thermal regime [1990, p.243-251, eng] 44-3007
- Moore, J.C.**
Chemical evidence in polar ice cores from dielectric profiling [1990, p.195-198, eng] 44-4192
Dielectric stratigraphy of ice: a new technique for determining total ionic concentrations in polar ice cores [1989, p.1177-1180, eng] 44-1069
- Moore, J.L.**
Lidar detection of leads in arctic sea ice [1990, p.119-123, eng] 44-3833
- Moore, J.P.**
Characteristics and classification of volcanic-ash-derived soils in Alaska [1989, p.8-28, eng] 44-2138
- Moore, M.B.**
Avalanche weather forecasting at the Northwest Avalanche Center, Seattle, Washington, U.S.A. [1990, p.57-66, eng] 44-3722
- Moore, R.K.**
150 MHz coherent radar system [1989, p.42-47, eng] 44-3358
Inexpensive polarimetric FM radar and polarimetric signatures of artificial sea ice [1989, p.188-191, eng] 44-3399
Method for measuring snow depth using fine-resolution radars [1989, p.151-158, eng] 44-3897
Modern radar for ice-sheet sounding [1988, p.63-64, eng] 44-1697
Radar backscatter measurements over saline ice [1990, p.603-615, eng] 44-3901
Radar backscattering from artificially grown sea ice [1989, p.259-264, eng] 44-8
- Moore, S.C.**
Coordinated Eastern Arctic Experiment: SPRI sea-ice studies [1990, p.203-210, eng] 44-3959
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Over-winter chemistry of subarctic fens, eastern Canada [1989, p.97-108, eng] 44-115
- Mootz, D.**
Polyhedral clathrate hydrates of a strong base: phase relations and crystal structures in the system tetramethylammonium hydroxide-water [1990, p.139-157, eng] 44-2777
- Morachevskii, V.G.**
Anomalous vertical distribution of humidity in the near-glacier air layer [1989, p.138-140, rus] 44-349
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Surface albedo parameterization in sea-ice models [1989, p.348-366, eng] 44-1261
- Morel, J.F.**
Effect of internal confinement on compression strength of frozen sand [1990, p.8-18, eng] 44-3287
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Temperature regime of the Akademiya Nauk Glacier, Severnaya Zemlya [1989, p.134-138, rus] 44-348
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Estimating sea ice thickness using time-of-flight data from impulse radar soundings [1989, 10p., eng] 44-2848
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- Morgenstern, N.R.**
Constitutive model for broken ice [1990, p.241-252, eng] 44-3297
Shear box tests on broken ice [1988, p.97-107, eng] 44-1132
Stress-strain behaviour of cohesionless broken ice [1988, p.109-119, eng] 44-1133

- Mori, T.**
Snowmelt in the development of mountain land into farmland. Part 4: comparison of runoff from snowmelt and rainfall [1989, p.115-118, jpn] **44-3631**
- Morin, H.**
C-14 chronology and snow-patch development in the Lac à l'Eau Claire area, northern Quebec [1987, p.97-108, fre] **44-998**
- Morison, J.H.**
Partition of air-ice-ocean momentum exchange as a function of ice concentration, floe size, and draft [1989, p.12,739-12,750, eng] **44-309**
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Electron spin resonance imaging study of spatial distribution of paramagnetic species produced by gamma-irradiation in sulfuric acid ices [1989, p.1657-1660, eng] **44-1677**
- Morits, E.I.A.**
Electrical supply installations for the Baykal-Amur mainline [1989, 175p., rus] **44-1826**
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Ice budget of the Greenland Sea [1988, 189p., eng] **44-2805**
Ross Sea data buoy project, 1986-1988 [1988, p.78-80, eng] **44-1703**
- Moriwaki, K.**
Report on the geomorphological, paleomagnetic, geodetic, zoological and botanical field work in the Sør Rondane Mountains, 1988-89 summer season (JARE-30) [1989, p.293-319, jpn] **44-1472**
Some observations of sea ice in the vicinity of Lützow-Holm Bay, Antarctica [1990, p.8-14, eng] **44-3739**
Study on controllability of the PPOSA hovercraft for the Antarctic [1984, p.90-93, jpn] **44-1688**
- Moriyama, T.**
Mechanical properties of A286 alloy at cryogenic temperatures [1988, p.85-88, jpn] **44-1312**
- Moriyoshi, A.**
Characterization of asphalt using artificial zeolite [1988, p.497-501, jpn] **44-2717**
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Temperature distribution in pavement with heat source [1986, p.601-605, jpn] **44-2505**
- Morland, L.W.**
Deep penetration of permafrost through saturated ground [1990, p.9-27, eng] **44-3537**
Mixture theory for a phase-changing snowpack [1990, p.271-285, eng] **44-3299**
- Morohashi, S.**
"Himuro project" insulation and utilization of solar radiation onto the snow/ice shed [1988, p.546-549, jpn] **44-2725**
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Transport organization during the extended navigation period [1989, 125p., rus] **44-1752**
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- Morozov, V.S.**
Freezing of winter roads in swamps [1989, p.51-56, rus] **44-2616**
- Morozova, T.D.**
Paleocryogenesis, soil evolution, and structure of soil cover [1989, p.274-280, rus] **44-3559**
- Morris, C.S.**
NASA SSM I data processing and archiving of sea ice products [1990, p.203-205, eng] **44-3850**
- Morris, E.M.**
Mixture theory for a phase-changing snowpack [1990, p.271-285, eng] **44-3299**
- Morris, R.J.**
Revised ground snow loads for the 1990 National Building Code of Canada [1989, p.267-278, eng] **44-122**
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Possible influence of an existing snow field on the track of a surface low pressure center—a case study [1989, p.14-18, eng] **44-2390**
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Tapping a glacier [1989, p.38-41, eng] **44-2524**
- Mortimer, F.B.**
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- Moscow's campaign to cut deficit jolts Soviet petroleum operations**
Moscow's campaign to cut deficit jolts Soviet petroleum operations [1989, p.17-20, eng] **44-1685**
- Moser, H.**
520-year temperature record of a 100 m core from the Ronne Ice Shelf, Antarctica [1990, p.90-93, eng] **44-4168**
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Ice Island sampling and investigation of sediments. Field report 1988 [1988, 42p., eng] **44-2770**
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Studies of the localization of plastic flow of metals at low temperatures [1990, p.96-101, rus] **44-4358**
- Moskalevskii, M.I.U.**
Studies of Fridtjof Glacier in Spitsbergen in 1988 [1989, p.148-153, rus] **44-352**
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Little Ice Age (neoglacial) paleoenvironmental conditions at Siple Station, Antarctica [1990, p.199-204, eng] **44-4193**
One-half millennia of tropical climate variability as recorded in the stratigraphy of the Quelccaya ice cap, Peru [1989, p.15-31, eng] **44-2106**
Pre-Incan agricultural activity recorded in dust layers in two tropical ice caps [1988, p.763-765, eng] **44-287**
- Mote, C.D., Jr.**
Model for the turning snow ski [1989, p.721-736, eng] **44-1843**
- Motoi, K.**
Automated measuring system designed for determining the snow stratigraphy [1985, p.401-406, jpn] **44-2335**
- Motoi, T.**
Convective mixing and formation of sea ice in the Weddell-Endebry basin of the southern ocean: in the years when the Weddell polynya appeared [1985, p.40-41, jpn] **44-58**
Snow melting system for the roof using heat pipes [1986, p.585-590, jpn] **44-2503**
- Motovilov, I.U.G.**
Simulation of soil frost depth and effect on runoff [1989, p.9-24, eng] **44-376**
Snow cover and snowmelt runoff model in the forest zone [1989, p.17-26, eng] **44-1823**
- Motoyama, H.**
Report of pit-wall observations of snow cover in Moshiri, Hokkaido (December, 1979-January, 1989) [1989, p.7-22, jpn] **44-3042**
Retardation method of snow melt for application to cold storage [1986, p.429-433, jpn] **44-2484**
- Mouishi, M.**
Prediction trial of snowslip danger slopes by the personal computer [1985, p.231-233, jpn] **44-2320**
- Moukwa, M.**
Deterioration of concrete in cold sea waters [1990, p.439-446, eng] **44-3898**
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Freeze-thaw tests of concrete in seawater [1989, p.360-366, eng] **44-1844**
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In situ permeability measurements [1989, p.63-73, eng] **44-1643**
- Mounier, L.**
Palaeoclimatological and chronological implications of the Vostok core dust record [1990, p.56-58, eng] **44-1537**
- Moussavi, M.**
Estimation of melt rate in seasonally snow-covered mountainous areas [1989, p.249-263, eng] **44-1682**
- Mowatt, T.C.**
Sediment composition and sedimentary processes in the Arctic Ocean [1989, p.657-720, eng] **44-986**
- Muc, M.**
Vascular plant communities of a polar oasis at Alexandra Fjord (70°N) Ellesmere Island, Canada [1989, p.1126-1136, eng] **44-1026**
- Muchnik, V.M.**
Effect of large industrial cities on solid precipitation [1989, p.46-55, rus] **44-4230**
Frequency of thunderstorms and hail near an industrial city [1989, p.55-59, rus] **44-4231**
- Muckel, G.B.**
Conservation applications impacted by soil freeze thaw [1990, p.108-112, eng] **44-2972**
- Mudie, P.J.**
Ice Island sampling and investigation of sediments—Field report 1988 [1988, 42p., eng] **44-2770**
Siliceous sponge communities, biological zonation, and recent sea-level change on the arctic margin: Ice Island results [1989, p.2341-2355, eng] **44-2275**
- Mueller, A.C.**
Forecasting Bering Sea ice edge behavior [1990, p.775-788, eng] **44-2136**
- Muench, R.D.**
AMERIEZ 1986: physical oceanographic conditions in the northwestern Weddell Sea marginal ice zone [1989, p.179-181, eng] **44-26**
Mesoscale phenomena in the polar oceans [1990, p.223-285, eng] **44-3979**
Oceanographic observations in the Scotia Sea marginal ice zone, June-Aug. 1988 [1989, 70p., eng] **44-618**
Sea ice margins: a summary of physical phenomena [1989, 51p., eng] **44-460**
Temperature and salinity staircases in the northwestern Weddell Sea [1990, p.295-306, eng] **44-2792**
- Muggeridge, D.B.**
Crack propagation in stiffened plates with welded joints using a fracture mechanics approach [1988, p.527-537, eng] **44-1170**
Double torsion test applied to fine grained and freshwater columnar ice and sea ice [1988, 12p., eng] **44-3950**
Response of semi-submersibles in ice environment [1985, p.33-46, eng] **44-1300**
Ship model testing in simulated ice floe covered waters [1989, p.147-154, eng] **44-3023**
- State-of-the-art review of wave propagation in floating ice sheets [1989, 20p., eng] 44-3119**
- Mugnai, A.**
Influence of ice microphysics on microwave radiation transfer through an evolving rain cloud [1989, p.627-630, eng] **44-4045**
Radiative transfer to space through a precipitating cloud at multiple microwave frequencies. Part III: Influence of large ice particles [1989, p.739-755, eng] **44-3306**
Simulation of microwave brightness temperatures of an evolving hailstorm at SSM/I frequencies [1990, p.2-13, eng] **44-2758**
- Muhleman, D.O.**
Radar reflectivity of Titan [1990, p.975-980, eng] **44-4145**
- Mukhetdinov, N.A.**
Design of the crest of stone-carthen dams built in regions with severe climatic conditions [1989, p.67-72, rus] **44-2609**
Types of ice formation in rockfill and rockfill-earth dams, built in permafrost regions [1989, p.30-32, rus] **44-96**
- Mukhomedsin, A.V.**
Some characteristics of the interaction of surface foundations with heaving soil under deep seasonal freeze conditions [1989, p.117-120, rus] **44-1503**
- Muksunov, N.Kh.**
Fracturing mechanism and dust yield dynamics in impact breakage of permafrost [1988, p.438-441, eng] **44-223**
- Mulabdic, M.**
Calibration of piezocones for investigations in soft soils and demands for accuracy of the equipment [1990, 62p., eng] **44-4461**
- Mulder, C.**
Icebreaker midbody resistance—phase 2: beam variation [1990, 176p., eng] **44-3769**
- Muldoon, M.A.**
Hydrogeologic and geotechnical properties of pleistocene materials in north-central Wisconsin [1988, 66p., eng] **44-1058**
- Mulherin, N.D.**
Evaluation of shear strength of freshwater ice adhered to icephobic coatings [1990, p.149-154, eng] **44-2218**
Framework for control of dynamic ice breakup by river regulation [1989, p.79-92, eng] **44-613**
Removal of atmospheric ice from broadcast towers using low-frequency, high-amplitude vibrations [1988, 6p., eng] **44-614**
- Mull, C.G.**
Dalton Highway, Yukon River to Prudhoe Bay, Alaska. Bedrock geology of the eastern Koyukuk basin, central Brooks Range, and Eastcentral Arctic Slope [1989, 2 vols. + append., eng] **44-427**
Road log from Chandalar Shelf (mile 237.1) to Prudhoe Bay (mile 414) [1989, p.101-131, eng] **44-430**
- Mullan, A.B.**
Meteorology [1990, p.21-54, eng] **44-4053**
- Müller, F.**
Heat transfer in evacuated packed glass spheres at low temperature [1988, p.239-248, ger] **44-3571**
- Müller-Haeckel, A.**
Significance of ice-covers for planktonic algae [1989, p.174-177, eng] **44-323**
- Müller, P.**
Assessing risks from glacier hazards in high mountain regions: some experiences in the Swiss Alps [1989, p.96-102, eng] **44-555**
- Mulligan, J.C.**
Simple quasi-steady analysis of turbulent flow freezing transients and comparison with experiments [1989, p.368-377, eng] **44-1009**
- Mulvaney, R.**
Chemical evidence in polar ice cores from dielectric profiling [1990, p.195-198, eng] **44-4192**
Dielectric stratigraphy of ice: a new technique for determining total ionic concentrations in polar ice cores [1989, p.1177-1180, eng] **44-1069**
- Munis, R.H.**
Reference guide for building diagnostics equipment and techniques [1989, 64p., eng] **44-777**
- Münich, K.O.**
Oxygen 18 and helium as tracers of ice shelf water and water/ice interaction in the Weddell Sea [1990, p.3253-3263, eng] **44-3185**
- Munro, D.S.**
Comparison of melt energy computations and ablatometer measurements on melting ice and snow [1990, p.153-162, eng] **44-4048**
Surface roughness and bulk heat transfer on a glacier: comparison with eddy correlation [1989, p.343-348, eng] **44-1895**
- Muradkhanov, V.A.**
Study on multicyclic fatigue of fluoroplastics F-4MB (teflon) under cryogenic conditions [1990, p.157-160, rus] **44-4372**
- Murakami, H.**
Study of the material for snow-drain's cover [1988, p.425-430, jpn] **44-2714**
- Murakami, S.**
Thermal conductivity of snow and snow/metal mixtures [1989, p.13-25, jpn] **44-3123**

- Murakami, T.**
Road traffic information system in winter on the route 230
[1988, p.646-652, jpn] 44-2738
- Muraki, Y.**
Experimental study on the permeability coefficient of sea ice
including sands and gravels [1988, p.289-296, jpn] 44-2696
- Murakami, M.**
Chemical prevention of road freezing: evaluation of road skid
resistance at low temperatures [1988, p.249-254, jpn] 44-2693
Comparative performance of various winter tires using two
high-speed skid test vehicles [1989, p.215-220, jpn] 44-2881
Deicing measures of road surface in expressways [1986,
p.451-456, jpn] 44-2486
Performance test of various tires and equipment to prevent
skid on snow and ice roads [1987, p.123-139, jpn] 44-1309
Property testing and efficient spreading method for de-icing
chemicals [1987, p.141-151, jpn] 44-1310
- Muramatsu, I.**
Depth of newly fallen snow measured by snow depth sensor
[1990, p.25-28, jpn] 44-3403
Distribution of snow cover in Honshu with due consideration
of satellite imagery [1990, p.1-11, jpn] 44-3401
- Muramoto, K.**
Measurement of snowflake size and falling velocity by image
processing [1989, p.48-54, eng] 44-1801
Measurements of falling attitudes of snowflakes using two
video cameras [1990, p.95-99, eng] 44-3549
- Muranishi, M.**
Development of guard fence used in snowy area [1986,
p.295-300, jpn] 44-2472
- Muraio, R.**
Study on controllability of the PPO5A hovercraft for the
Antarctic [1984, p.90-93, jpn] 44-1688
- Murase, H.**
On the new ice repellent coating [1985, p.114-118, jpn] 44-2302
- Murat, J.R.**
In situ determination of creep properties of sea ice with the
pressuremeter [1989, p.575-594, eng] 44-2644
Low-temperature calibration techniques for a pressure-
volume controlled pressuremeter [1988, p.75-87, eng] 44-1130
- Murata, M.**
High-toughness age-hardenable copper-bearing steel for
large-diameter line pipe [1990, p.13-20, eng] 44-2078
- Murav, Sh.S.**
Early test results from preventive triggering of avalanches in
the Chingnan area [1989, p.37-40, rus] 44-1568
- Murav, V.M.**
Evaluation of low-cyclic strength of cryogenic equipment
[1990, p.161-167, rus] 44-4373
- Murav'ev, I.A.D.**
Stratification of glaciers in Kamchatka [1989, p.144-148,
rus] 44-351
- Murayama, Y.**
Utilization of snow-melt water at coastal region [1985,
p.348-353, jpn] 44-2479
- Murday, M.**
Review and evaluation of contingency plans for oil and haz-
ardous substances in the upper Great Lakes region. Final
report [1986, 273p., eng] 44-836
- Murkina, N.G.**
Low-temperature structural durability of various welded
joints of 12Kh18N10T steel and AMg5 alloy [1990,
p.125-126, rus] 44-4364
- Murphy, B.B.**
Chemical migration in snowpack [1989, p.282-286, eng] 44-4028
- Murphy, D.M.**
Ice saturation at the tropopause observed from the ER-2 air-
craft [1990, p.353-356, eng] 44-3421
- Murphy, T.R.**
Planning and execution of a 500 m corehole through offshore
permafrost [1990, p.271-282, eng] 44-3672
- Murray, A.**
Modeling of ice class shafting systems [1990, p.P/1-P/22,
eng] 44-3478
Risk analysis methodology for mobile offshore units operating
in ice-infested waters [1984, p.H/1-H/12, eng] 44-3457
- Murray, B.C.**
Color and albedo of the south polar layered deposits on Mars
[1990, p.1343-1358, eng] 44-2286
Mariner 9 observations of the south polar cap of Mars: evi-
dence for residual CO₂ frost [1990, p.1319-1335, eng] 44-2284
Winter frost at Viking Lander 2 site [1990, p.1495-1510,
eng] 44-2295
- Murray, D.R.**
Dynamics of the late Pleistocene Big Timber glacier, Crazy
Mountains, Montana, U.S.A. [1989, p.183-190, eng] 44-1542
- Murray, K.A.**
Experimental results on frost as a first wall shielding concept
for inertial confinement fusion. Final report [1990, 100p.,
eng] 44-3771
- Murray, M.**
Effects of snow on landmarks in K(sub u) band SAR (synthet-
ic aperture radar) images [1989, 127p., eng] 44-786
- Murray, R.W.**
Effect of hostile marine environments on the Al-Zn-In-Si sac-
rificial anode [1988, p.70-77, eng] 44-1869
- Murray, S.B.**
Saltation flow measurements relating to modeling of snow-
drifting [1982, p.89-102, eng] 44-417
- Murrell, D.F.**
Investigation of thermal screening of individual soldiers in
cold regions. Final report [1990, 12p. + appends., eng] 44-3443
- Murrell, R.C.**
Artificial and natural icing tests of the UH-60A helicopter
configured with the XM-139 multiple mine dispensing sys-
tem (VOLCANO). Final report 10 Jan.-22 Feb. 88
[1988, 56p., eng] 44-841
- Murrell, S.A.F.**
Fracture of multi-year sea ice under triaxial stresses: ap-
paratus description and preliminary results [1989, p.258-
263, eng] 44-1200
- Murzin, A.I.**
Economic effect of hydrometeorological and ice information
for arctic navigation [1989, p.75-81, rus] 44-4324
- Musha, T.**
Effect of pulse length changes on Weibull clutter of sea ice
[1990, p.15-18, eng] 44-2639
- Musselman, R.C.**
Tree morphology as an estimator of average snow depth
[1989, p.232-236, eng] 44-4019
- Muszynski, I.**
Asynchronous coupling of ice-sheet and atmospheric forcing
models [1990, p.247-251, eng] 44-4203
- Mysak, L.A.**
On the relationship between arctic sea-ice anomalies and fluc-
tuations in northern Canadian air temperature and river
discharge [1989, p.682-691, eng] 44-2046
Simple ice-ocean model for the Greenland Sea [1989,
p.1865-1880, eng] 44-1735
- Nabator, V.N.**
Small-scale hydrophysical processes in the surface layer of the
sea close to pack ice [1987, p.63-66, rus] 44-1595
- Nadreau, J.P.**
Failure maps for ice [1988, p.45-55, eng] 44-1128
- Nagano, N.**
Coatings for concrete structures in cold region [1986, p.536-
541, jpn] 44-2496
- Naganobu, M.**
Ocean structure along 30W in the southern ocean [1985,
p.38-39, jpn] 44-57
Seasonal variation of marine environmental conditions under
fast ice in Ongul Strait, Antarctica [1985, p.42-43, jpn] 44-59
- Nagao, T.**
Ocean drilling in the Weddell Sea [1987, p.45-51, jpn] 44-380
- Nagaoka, Y.**
Plan for snow fences on multilane highways [1987, p.91-96,
jpn] 44-3514
- Nagasaka, S.**
Countermeasure against low temperature in telecommunica-
tion station in winter [1989, p.551-556, jpn] 44-2914
- Nagase, T.**
Performance test of various tires and equipment to prevent
skid on snow and ice roads [1987, p.123-139, jpn] 44-1309
- Nagashima, F.**
Solidification interface shape in plane channel flow subjected
to wall cooling [1987, p.32-48, eng] 44-1337
- Nagashima, Y.**
Subject and improvement of auto-valves on water pipe in cold
district [1988, p.93-98, jpn] 44-2668
- Nagata, M.**
Structure of a convergent cloud band over the Japan Sea in
winter: a prediction experiment [1987, p.871-883, eng] 44-1303
- Nagel, R.H.**
Design and construction of the Mars ice island [1988, p.31-
38, eng] 44-1013
- Nagoshi, M.**
Measurements of total gas content of an ice core from Mizuho
Station, Antarctica [1990, p.51-57, eng] 44-3547
- Nagura, M.**
Structure of poly(vinyl alcohol) hydrogel prepared by repeat-
ed freezing and melting [1989, p.762-765, eng] 44-43
- Nagurnyi, A.P.**
Sea ice deformation as a source of surface air aerosol accord-
ing to data from the expedition aboard the nuclear icebreaker
Sibir' (May-June 1987) [1989, p.582-584, rus] 44-1374
Thermohaline structure, water circulation and deep winter
convection in the Greenland Sea stationary gyre [1990,
p.87-88, eng] 44-4071
Total ozone content variability in the north polar area based
on data from the expedition aboard the nuclear icebreaker
Sibir' (May-June 1987) [1989, p.1099-1103, rus] 44-1758
- Naidu, A.S.**
Sediment composition and sedimentary processes in the Arctic
Ocean [1989, p.657-720, eng] 44-986
- Naik, B.**
Effect of freezing on the composition of supercooled droplets
—II. retention of S(IV) [1990, p.389-398, eng] 44-3606
- Naito, Y.**
Temporal variability of primary production and energy flow
in arctic sea ice area (PREFLA Project) [1990, p.102-112,
eng] 44-3743
- Naitou, S.**
Development and certification of a visibility-range monitor by
image processing [1989, p.117-119, eng] 44-558
- Nakagawa, M.**
Bending shear: the rate-controlling mechanism for calving ice
walls [1989, p.260-266, eng] 44-1554
- Nakagawa, S.**
Experimental studies on reducing methods of uplift force to
a steel pipe [1989, p.565-566, eng] 44-937
- Nakahira, O.**
Statistical characteristics of radar echoes of precipitating
snow clouds over the Ishikari Bay, Hokkaido, Japan (Radar
echo climatology: Part 1) [1989, p.221-230, eng] 44-379
- Nakai, S.**
Doppler radar observation of orographic modification of snow
clouds—a case of enhanced snowfall [1990, p.1-16, jpn] 44-3310
- Nakajima, J.**
Tests on improving the efficiency of snow removal devices on
snow removal trucks [1989, p.195-200, jpn] 44-3525
Tests on snow removal truck [1987, p.1283-1288, jpn] 44-3521
- Nakajima, Y.**
Measurement of snowfall intensity by optical snow detector
[1989, p.564-568, jpn] 44-2917
- Nakamura, H.**
Analysis of ice formation with flow reversal for application to
a water source heat pump [1989, p.366-374, eng] 44-3030
Analysis of ice formation with flow reversal for application to
a water source heat pump [1989, p.27-35, eng] 44-4256
- Nakamura, I.**
Fundamental study on standard design methods of snow-con-
veyance gutter systems and snow-melting gutter systems
[1989, p.239-251, jpn] 44-2353
- Nakamura, M.**
Investigation and simulation of heat storage in aquifer in Hok-
kaido [1988, p.591-596, jpn] 44-2732
Snow pressure in design of fiberglass-reinforced-plastic fences
at Wakkanai Airport [1987, p.1189-1194, jpn] 44-3519
- Nakamura, N.**
Tests on rotary snow removal machinery [1987, p.1251-
1268, jpn] 44-3520
- Nakamura, S.**
Freezing around a vertical cylinder [1988, p.235-246, jpn] 44-1368
- Nakamura, T.**
On the utilization of E. P. S as a draining material, one of
methods against freeze control measures [1988, p.114-119,
jpn] 44-2670
- Nakanishi, H.**
Model tests of retarding structures for avalanches and its
numerical simulation [1986, p.278-283, jpn] 44-2469
Numerical simulation of pressure on snow-glide supporting
structures [1988, p.214-219, jpn] 44-2687
- Nakanishi, K.**
Thermal sprayed coatings on concrete surface and its proper-
ties [1988, p.479-484, jpn] 44-2715
- Nakano, T.**
Tests on wind and snow control and obstructions to visibility:
wind tunnel experiments on snow fences on National High-
way 241 in the Sokotai area [1989, p.189-194, jpn] 44-3524
- Nakano, Y.**
Nonlinear problems in the study of water movement in frozen
soils [1989, p.383-393, eng] 44-3766
Quasi-steady problems in freezing soils: I. analysis on the
steady growth of an ice layer [1990, p.207-226, eng] 44-3295
Transport of water due to a temperature gradient in unsatur-
ated frozen clay [1990, p.57-75, eng] 44-3540
- Nakao, K.**
Hydrological regime in tundra plain, St. Lawrence Island in
Bering Sea [1986, p.1-13, eng] 44-1616
- Nakao, M.**
Characteristics of heat balance on snow-accumulated roads
[1989, p.195-198, jpn] 44-2879
On surface temperatures of a road in cold region [1989,
p.199-203, jpn] 44-2880
- Nakao, T.**
Annual and diurnal variation in radiation balance of ground
surface at Kitami [1988, p.579-584, jpn] 44-2731

- Nakata, N.**
Method of efficient ice cold energy storage using a heat transfer of direct contact phase change and a natural circulation of a working medium in an enclosure [1988, p.117-131, jpn] 44-1370
- Nakata, T.**
Blowing-snow numerical simulation [1987, p.411-416, jpn] 44-2554
Numerical simulation of snowdrift development [1989, p.265-268, eng] 44-587
- Nakato, T.**
Unconventional power sources for ice control at locks and dams [1989, p.107-126, eng] 44-1771
- Nakawo, M.**
Climatic information from the Chongce Ice Cap, West Kunlun, China [1990, p.205-207, eng] 44-4194
Dating the Mizuho 700-m core from core ice fabric data [1989, p.105-110, eng] 44-1807
Dynamical behavior of the ice sheet in Mizuho Plateau, East Antarctica [1989, p.97-104, eng] 44-1806
Measurements of total gas content of an ice core from Mizuho Station, Antarctica [1990, p.51-57, eng] 44-3547
Thinning of the ice sheet estimated from total gas content of ice cores in Mizuho Plateau, East Antarctica [1990, p.131-135, eng] 44-4178
- Nakaya, H.**
Dynamic interaction between snow and machine structure (first report, the dependence of velocity on friction factor) [1989, p.171-176, jpn] 44-2875
- Nakayama, H.**
Report on measurement of riverbed waves during snowmelt runoff [1987, p.423-428, jpn] 44-3517
- Naka, K.**
Tests on rotary snow removal machinery [1987, p.1251-1268, jpn] 44-3520
- Nakazawa, N.**
Adfreeze bond strength between sea ice and various materials [1985, p.172-177, jpn] 44-2311
Estimation method for vertical ice forces acting on multilegs offshore structures due to changes in water level [1986, p.172-177, jpn] 44-2460
Ice forces acting on fender piles [1989, p.387-393, jpn] 44-2904
Ice forces acting on water intake towers [1989, p.421-431, jpn] 44-2909
Vertical ice forces acting on multi-legs offshore structures due to changes in water level [1986, p.166-171, jpn] 44-2459
Vertical ice forces on pile structures due to changes in water level [1985, p.150-155, jpn] 44-2307
- Namekata, S.**
Pollution of snow on the ground [1989, p.313-315, jpn] 44-2895
- Namioka, T.**
Influence of deicing chemicals on sewage treatment [1989, p.330-335, jpn] 44-2897
- Naprasnikov, A.T.**
Charkaya Basin—geographical proving ground of the BAM zone [1987, 98p., rus] 44-1875
- Nara, M.**
Ice pond for use of winter coldness in agriculture—automatic ice making [1989, p.225-230, jpn] 44-2882
- Narayanan, R.M.**
Millimeter-wave backscatter characteristics of multilayered snow surfaces [1990, p.693-703, eng] 44-3695
- Narbut, R.M.**
Construction in water: manual [1989, 527p. (Pertinent p.97-110, 439-448), rus] 44-3360
- Narita, H.**
Internal structure of powder-snow avalanches [1989, p.207-210, eng] 44-375
Measurements of friction coefficients of snow blocks [1989, p.40-44, eng] 44-546
Structures and properties of snow and ice on roads [1986, p.445-450, jpn] 44-2485
- Narita, S.**
Comparative model tests in ice of a Canadian Coast Guard R-class icebreaker [1989, p.1/1-1/18, eng] 44-3984
Comparative model tests in ice of a Canadian Coast Guard R-class icebreaker [1990, p.31-52, eng] 44-4421
- Naruse, R.**
Ablation process of snow and ice on roads [1987, p.151-154, jpn] 44-2531
Heat balance of snow and ice on roads [1987, p.155-158, jpn] 44-2532
Impact-force measurements with a small snow-avalanche system [1986, p.272-277, jpn] 44-2468
Structures and properties of snow and ice on roads [1986, p.445-450, jpn] 44-2485
Thinning of the ice sheet estimated from total gas content of ice cores in Mizuho Plateau, East Antarctica [1990, p.131-135, eng] 44-4178
- Nash, D.B.**
Hydrogen sulfide on Io: evidence from telescopic and laboratory infrared spectra [1989, p.454-457, eng] 44-42
- Nasonova, L.N.**
Methods and some results of studies of the microstructure, ice-forming properties, elemental and chemical composition of giant and super-giant aerosol particles [1989, p.108-115, rus] 44-874
- National Conference on Hydraulic Engineering, New Orleans, LA, Aug. 14-18, 1989**
Hydraulic engineering [1989, 1212p., eng] 44-422
- Naumov, E.M.**
Geography of soils in the permafrost region [1989, p.258-263, rus] 44-3556
- Navarin Basin ice drift program. Final report Mar. 1986-Jan. 1987**
Navarin Basin ice drift program. Final report Mar. 1986-Jan. 1987 [1987, 39p., eng] 44-1216
- Nawata, T.**
Method for the estimation of ice loads [1985, p.138-143, jpn] 44-2305
- Nawwar, A.M.**
Development of a test method to determine the resistance of concrete to ice abrasion and/or impact [1988, p.401-426, eng] 44-1739
- Nawy, E.G.**
Repair of bridge deck structures in cold weather. Final report [1987, 219p., eng] 44-676
- Nazarenko, D.M.**
High frequency dynamic response of the Canadian east coast seasonal sea ice zone [1989, p.74-81, eng] 44-4000
- Nazarenko, L.S.**
Model of sea ice cover in the arctic basin [1988, p.96-116, rus] 44-1939
- Nazarian, S.**
Applicability of spectral-analysis-of-surface-waves method in determining moduli of pavements [1989, p.210-225, eng] 44-1659
- Nazarov, I.M.**
Monitoring of snow cover pollution in the USSR by background and impact levels [1989, p.42-55, rus] 44-2937
Vertical distribution characteristics of sulphate deposition in snow cover in the mountain areas of the USSR [1989, p.86-89, rus] 44-2850
- Nazarov, N.A.**
Model and algorithm for calculating river flow formation in a forest drainage area [1988, 107p., rus] 44-1883
- Nazarov, N.N.**
Transport organization during the extended navigation period [1989, 125p., rus] 44-1752
- Nazitser, I.U.L.**
Thermophysical properties of sea ice [1988, 258p., rus] 44-1402
- Neill, F.**
VLF surface-impedance measurements for ice-depth mapping in the Antarctic [1989, p.197-200, eng] 44-1545
- Nebeker, A.V.**
Effects of freezing on toxicity of sediments contaminated with DDT and endrin [1989, p.883-891, eng] 44-1205
- Nechaev, V.P.**
Paleocryogenics, soil evolution, and structure of soil cover [1989, p.274-280, rus] 44-3559
- Nedell, S.**
Sand/ice interactions and sediment deposition in perennially ice-covered antarctic lakes [1989, p.237-240, eng] 44-659
- Neely, H.H.**
Experimental results on frost as a first wall shielding concept for inertial confinement fusion. Final report [1990, 100p., eng] 44-3771
- Neff, J.M.**
Sources, fates and effects of aromatic hydrocarbons in the Alaskan marine environment with recommendations for monitoring strategies [1986, 123p., eng] 44-2108
- Negishi, M.**
Freezing index and freezing depth in rock of road tunnels [1989, p.43-48, jpn] 44-3563
Frost damage to roads in Hokkaido with special reference to slope, tunnel and gutter [1989, p.65-70, jpn] 44-3442
- Neimokhova, V.I.**
Forecasting the potential effectiveness of thermal melioration of frozen soil [1988, p.104-113, rus] 44-1968
- Nekrasov, I.A.**
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Linear structures on permafrost [1990, 184p., rus] 44-4291
Selection of pipeline routes in the Vyngapur River Basin [1990, p.55-60, rus] 44-4301
- Nelepovits, D.O.**
De-icing of aircraft turbine engine inlets. Final report Oct.86-June 88 [1988, 72p., eng] 44-680
- Nelson, D.M.**
AMERIEZ 1986: nutrient and phytoplankton biomass distributions in the ice-edge zone of the northwestern Weddell Sea [1989, p.182-183, eng] 44-27
- Nelson, F.E.**
Cryoplanation terraces: periglacial cirque analogs [1989, p.31-41, eng] 44-107
Permafrost zonation in eastern Canada: a review of published maps [1989, p.233-248, eng] 44-2130
Preliminary investigation of solifluction macrofabrics [1985, p.23-33, eng] 44-2283
- Nelson, L.D.**
Meteorological supercooled water and rime sensor for cloud physics research. Final report [1985, 57p., eng] 44-1095
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Production and storage of ice for cooling buildings [1989, p.338-344, eng] 44-1525
Simple method for modeling the frost formation phenomenon in different geometries [1989, p.1127-1137, eng] 44-3035
- Nemani, R.R.**
MTCLIM: a mountain microclimate simulation model [1989, 52p., eng] 44-2834
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- Nesje, A.**
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- Nessim, M.A.**
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- Nesterov, A.I.**
Amplification of acoustic waves during rapid crystallization [1988, p.103-104, eng] 44-2056
- Neuman, C.M.**
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- Neureuther, R.**
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- New airborne tool for arctic hydrography**
New airborne tool for arctic hydrography [1988, p.1-2, eng] 44-2430
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Preliminary investigation of model ice failure pattern and piece size generated by an icebreaker bow form [1989, 5p. + append., eng] 44-3180
- Newcomb, D.E.**
Minnesota cold regions pavement test facility [1989, p.360-369, eng] 44-1671
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Statistical characteristics of frozen soil in Jilin Province [1989, p.34-43, chi] 44-648
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Arctic ecosystems, sea ice and global warming [1990, p.206-211, eng] 44-4116
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Numerical model of mesoscale physical-biological interactions in the Fram Strait marginal ice zone [1989, p.16.151-16.175, eng] 44-1108

- Nieber, J.L.**
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Method for quick calculation of temperature differences in concrete members (1985, p.231-235, eng) 44-1986
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- Niemann, C.**
Studies in freezing of water and aqueous solutions (1989, p.1394-1417, eng) 44-4438
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Meteorological data from Polish antarctic station "H. Arctowski" for 1987 (1989, p.251-254, eng) 44-2739
- Nihon Kaiyo Gakkai shuki taikai, Sendai, Japan, Oct. 2-6, 1985**
Autumn Conference of the Japanese Oceanographic Society, Sendai, Japan, Oct. 2-6, 1985. Summaries of the lectures (1985, 327p., jpn) 44-56
- Niimi, M.**
Method of efficient ice cold energy storage using a heat transfer of direct contact phase change and a natural circulation of a working medium in an enclosure (1988, p.117-131, jpn) 44-1370
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Snow melting agents in Hokkaido (1989, p.103-108, jpn) 44-3568
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- NIPR Symposium on Polar Meteorology and Glaciology, 10th, Tokyo, Dec. 8-9, 1987**
Proceedings of the NIPR Symposium on Polar Meteorology and Glaciology, No.2 (1989, 182p., eng) 44-1799
- NIPR Symposium on Polar Meteorology and Glaciology, 11th, Tokyo, July 12-13, 1988**
Proceedings of the NIPR Symposium on Polar Meteorology and Glaciology, No.3 (1990, 114p., eng) 44-3544
- Nisbet, J.S.**
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Report on improving the accuracy of winter flow observations (1989, p.39-44, jpn) 44-3588
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- Nishio, N.**
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- Noev, I.I.**
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- Noguchi, I.**
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- Nohara, I.**
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Studies on the dynamics of the two-phase flow composed of snow and water (1985, p.452-457, jpn) 44-2338
- Nohara, T.**
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- Nominkhanov, V.V.**
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- North American Sea Ice Workshop, Amherst, MA, June 26-28, 1989**
Program and abstracts (1989, n.p., eng) 44-1478
- North, G.R.**
Modeling onset of glaciation (1990, p.39-42, eng) 44-4158
- Northern Research Basins Symposium-Workshop, 7th, Ilulissat, Greenland, May 25-June 1, 1988**
Applied hydrology in the development of northern basins (1988, 347p., eng) 44-232
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All-Union Conference on the Ecology of Oil and Gas Complexes, 1st, Nadym, Oct. 3-5, 1988. Summaries [1988, 241p., rus] 44-3326
Ecological impact of the oil and gas industry. Proceedings of the First All-Union Conference, Oct. 3-6, 1988, Nadym, USSR; Issue No.1, Pt. No.1 [1989, 195p., rus] 44-4505
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- Ohno, S.**
"HIMURO project" constant temperature storage house heated by the respiration heat of agricultural products [1989, p.254-257, jpn] 44-2886
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n-alkylphenyldimethylammonium salts as inhibitors of the ice nucleating activity of *Erwinia ananas* (1990, p.549-550, eng) **44-3582**
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Phytomass reserve and structure in patchy tundras of the eastern shore of Lake Taymyr (1984, p.12-18, eng) **44-280**
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Method of studying the migration process of moisture and heaving in peat soils (1985, p.3-8, rus) **44-2363**
Methods of studying seasonally freezing and frozen ground. Collection of scientific papers (1985, 76p., rus) **44-2362**
- Orombelli, G.**
Geomorphological and glaciological investigations in Victoria Land (Second expedition of the Italian Antarctic Research Program, 1986-1987) (1987, p.321-336, ita) **44-2098**
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Terra Nova Bay: a geographic overview (1987, p.69-75, eng) **44-3245**
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Cold regions engineering: climatic warming concerns for Alaska [1990, p.6-14, eng] 44-3385
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- Ostreng, W.**
Geography and military confrontation in the North [1989, p.11-15, eng] 44-1766
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Atlas of oceanographic information for Norton Sound, Alaska. Final report [1987, 143p., eng] 44-679
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Arctic air pollution: a Norwegian perspective [1989, p.2349-2356, eng] 44-2250
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- Outer Continental Shelf Environmental Assessment Program. Final reports of principal investigators, Vol.57**
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- Owens, W.B.**
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- Paikanskaia-Gvozdeva, I.I.**
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Mariner 9 observations of the south polar cap of Mars: evidence for residual CO₂ frost [1990, p.1319-1335, eng] 44-2284
- Pain, R.H.**
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- Palanisamy, M.**
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Final report
Research on ocean forecasting and nonlinear wave propagation and numerical hydrodynamics in the ocean. Final report (1988, 174p., eng) 44-850
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Handbook of soil mechanics. Vol.3. Soil mechanics of earthworks, foundations and highway engineering (1988, 363p., eng) 44-1477
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Icebreaker design synthesis, analysis of contemporary icebreaker performance (1989, Var.p., eng) 44-1495
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Refinery/additive technologies and low temperature pumpability [1988, p.3.970-3.980, eng] 44-4246
Wax and low temperature engine oil pumpability [1985, p.768-776, eng] 44-1190
- Rossiter, J.R.**
Airborne measurement of sea ice thickness using electromagnetic induction during LIMEX 89 [1990, p.309-315, eng] 44-2240
- Roth, R.**
Standardized ice accretion thickness as a function of cloud physics parameters [1988, 64p., eng] 44-802
- Roth, R.J.G.**
Requirements of diesel engine oil as it relates to low temperature operation [1989, 12p., eng] 44-2854
- Rothlisberger, H.**
Forecasting the effects of a planned reservoir which will partially flood the tongue of Unteraargletscher in Switzerland [1989, p.76-81, eng] 44-352
On the numerical solution of Stefan problems in temperate ice [1990, p.41-48, eng] 44-3720
- Rothrock, D.A.**
Arctic Ocean multi-year ice balance, 1979-82 [1990, p.252-255, eng] 44-4204
Opening and closing of sea ice leads: digital measurement from synthetic aperture radar [1990, p.789-796, eng] 44-2137
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Substrate freeze-thaw in a drained Alberta fen [1989, p.1024-1029, eng] 44-1268
- Rototseva, O.V.**
Features of the snow cover distribution on glaciers in winter and spring on the southern slope of Elbrus Mountain [1989, p.154-160, rus] 44-353
- Rott, H.**
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- Rouse, W.R.**
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- Rousset, J.L.**
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- Rowntree, P.R.**
Progress and future developments in modelling the climate system with general circulation models [1989, p.163-175, eng] 44-2784
- Roy, A.G.**
Effect of an ice jam on the morphology of a river channel confluence [1988, p.191-196, fre] 44-749
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Analysis of snow albedo as estimated by Landsat-5 Thematic Mapper [1989, p.272-276, fre] 44-4026
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Frost resistant concretes from cast mixes with polyfunctional modifiers [1989, p.21-22, rus] 44-4538
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- Rubin, M.D.**
Versatile procedure for calculating heat transfer through windows [1989, p.755-765, eng] 44-3033
- Rubinshtein, I.**
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- Rubinshtein, I.G.**
Validation of the SSM/I and AES/YORK algorithms for sea ice parameters [1990, p.206-208, eng] 44-3851
- Rubtsov, E.A.**
Natural conditions and the problems in protecting the environment near the construction site of a railroad line through the Caucasian mountain pass [1989, p.67-77, rus] 44-1783
- Rubtsov, M.V.**
Effects of forests on snow reserves and snow melting in the middle taiga of the European North [1986, p.8-13, eng] 44-1731
Freezing and thawing of soil in forest and on cultivated lands in the taiga zone of the European USSR [1989, p.116-122, eng] 44-3252
- Rubtsov, N.A.**
Prediction of the effect of a flare on permafrost [1986, p.33-37, eng] 44-1729
- Rudavets, L.N.**
Effect of polyester thickeners on thermal stability and low-temperature properties of phosphate fluids [1990, p.352-354, eng] 44-3203
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Late Pliocene variation in Northern Hemisphere ice sheets and North Atlantic deep water circulation [1989, p.413-446, eng] 44-1734
Northern Hemisphere climate regimes during the past 3 Ma: possible tectonic connections [1988, p.1-20, eng] 44-11
Pleistocene evolution: Northern Hemisphere ice sheets and North Atlantic Ocean [1989, p.353-412, eng] 44-1733
- Rudenko, V.N.**
Deformation and failure of steel VNS25 at low temperatures taking account of the form of stressed state and stress concentrations [1989, p.56-59, eng] 44-3880
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Planning and execution of a 500 m corehole through offshore permafrost [1990, p.271-282, eng] 44-3672
- Rumiantsev, G.V.**
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- Rummer, D.I.**
150 MHz coherent radar system [1989, p.42-47, eng] 44-3358
- Runacres, A.M.E.**
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Grazing and sedimentation of ice algae during and immediately after a bloom at the ice-water interface [1989, p.291-300, eng] 44-479
- Runnala, S.W.**
MTCLIM: a mountain microclimate simulation model [1989, 52p., eng] 44-2834
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Vibrating wire technology for settled dust monitoring [1988, p.71-82, eng] 44-282
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Flight and wind tunnel investigation of aerodynamic effects of aircraft ground deicing/anti-icing fluids [1989, p.24/1-24/11, eng] 44-3382
- Rusak, I.F.**
Determination of low-temperature strengthening of aluminum alloys [1990, p.229-233, rus] 44-4388
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Albedo decay of prairie snows [1990, p.179-187, eng] 44-3420
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Observations on the drainage of an ice-dammed lake in West Greenland [1990, p.72-74, eng] 44-3724
- Russell-Head, D.S.**
Runway sites for heavy wheeled aircraft in East Antarctica [1990, 95p. + 25 folded maps in separate loose-leaf binder, eng] 44-3894
- Rust, B.R.**
Champlain Sea subwash fan at St. Lazare, Quebec [1988, p.47-61, eng] 44-4454
Ice-proximal deposits of the Champlain Sea at South Gloucester, near Ottawa, Canada [1988, p.37-45, eng] 44-4453
- Ruth, B.E.**
Cracking mechanisms of asphalt concrete pavements at low service temperatures [1988, p.56-75, eng] 44-2837
Prediction of flexible pavement layer moduli from Dynaflect and FWD deflections [1989, p.245-277, eng] 44-978
- Rutkowski, D.**
Multiyear trends in snowpack ion accumulation and loss, northern Michigan [1990, p.721-737, eng] 44-3349
- Ruz, M.-H.**
Coastal sedimentation along glacial outwash plain shorelines in northwest Spitsbergen [1990, p.77-88, fre] 44-3533
- Ryan, J.P.**
Use of satellite imagery for tracking the Kurdistan oil spill [1981, 31p., eng] 44-1909
- Rybakova, N.A.**
Water permeability of frozen soils under tree stands in the forest-steppe zone [1990, p.106-112, eng] 44-4057
- Rychnovsky, R.**
Deep ice penetrator [1988, p.323-336, eng] 44-1150
- Ryden, C.G.**
Experimental determination of pore pressure development in a thawing soil [1988, p.489-495, eng] 44-1166
- Ryerson, C.C.**
Atmospheric icing climatologies of two New England mountains [1988, p.1261-1281, eng] 44-66
Atmospheric icing rates with elevation on northern New England mountains, U.S.A. [1990, p.90-97, eng] 44-2664
- Rylova, T.B.**
Some results of the correlation of Byelorussian Pleistocene glaciations [1989, p.160-166, rus] 44-1919
- Ryokai, K.**
Artificial permafrost and its application for low temperature food storage [1987, p.1-9, jpn] 44-1347
Artificial permafrost storage harnessed cold climate using heat pipe [1989, p.237-241, jpn] 44-2884
Artificial permafrost storage harnessed cold climate using heat pipes [1988, p.525-529, jpn] 44-2721
Frost heaving of saturated soil under constant confining stress [1980, p.27-36, jpn] 44-3085
Frozen ground formation by heat pipe and its application [1985, p.362-367, jpn] 44-2330
Low temperature storage by means of heat pipe [1986, p.409-412, jpn] 44-2480
Low temperature storage by means of heat pipe Pt 2 [1987, p.22-26, jpn] 44-2528

- Ryokai, K. (cont.)**
Review and findings of laboratory tests on the mechanical properties of artificially frozen soils [1982, p.7-17, eng] 44-3090
Rheology in soil engineering. Part 5. Rheology of frozen ground [1981, p.83-90, jpn] 44-3087
Storage for foods utilizing artificial permafrost [1987, p.88-92, jpn] 44-3192
- Rytikönen, J.**
Oil pollution problem in the Baltic marine environment [1989, p.307-327, eng] 44-3801
- Rzentkowski, G.**
Investigation into the post-stable behavior of a tube array in cross-flow [1989, p.457-465, eng] 44-1536
- Saarelainen, S.**
General report on frost action in soil [1989, p.415-417, eng] 44-917
- Sabol, S.A.**
Fracture toughness of ice in contact with salt water [1989, p.191-192, eng] 44-1543
- Sackinger, P.A.**
On the freezing of sprayed sea water to produce artificial sea ice [1988, p.581-590, eng] 44-1175
- Sackinger, W.M.**
Arctic ice island and sea ice movements and mechanical properties. Fourteenth quarterly report, 1 January 1987-31 March 1987 [1987, 31p., eng] 44-722
Construction of the port of Nome, Alaska [1988, p.627-632, eng] 44-1179
Corrosion protection of arctic offshore structures. Final report [1985, 183p., eng] 44-855
Failure stress and failure modulus of natural ice island ice under uniaxial compression at constant strain rates [1990, p.223-229, eng] 44-2227
Ice island detection and characterization with airborne synthetic aperture radar [1990, p.5371-5377, eng] 44-3279
Mountain barrier effect and modification of tabular iceberg motion in a coastal ice zone [1989, p.701-710, eng] 44-481
Mountain barrier effects on ice island drift in a coastal ice zone [1990, p.163-168, eng] 44-3842
Offshore winds and pack ice movement episodes north of Ellesmere Island [1988, p.271-286, eng] 44-1145
On the freezing of sprayed sea water to produce artificial sea ice [1988, p.581-590, eng] 44-1175
Port and ocean engineering under arctic conditions. Proceedings, Vol.2 [1988, 111p., eng] 44-860
Port and ocean engineering under arctic conditions. Vol.3 [1988, 683p., eng] 44-1123
Some measurements and observations of very old sea ice and brackish ice, Ward Hunt Ice Shelf, N.W.T. [1989, p.553-564, eng] 44-1015
Study of the bond formed between various coated steel surfaces and sea spray ice [1988, p.565-570, eng] 44-1173
- Sackman, T.**
Arctic industrial activities compilation, Vol.2; Sverdrup Basin: hydrocarbon exploration 1974-1984 [1985, 181p., eng] 44-1507
- Sado, K.**
Annual and diurnal variation in radiation balance of ground surface at Kitami [1988, p.579-584, jpn] 44-2731
- Sadoury, R.**
Simulations of the last glacial maximum with an atmospheric general circulation model including paleoclimatic tracer cycles [1989, p.159-162, eng] 44-2783
- Sadosvskii, A.V.**
State of the art: mechanical properties of frozen soil [1989, p.443-463, eng] 44-920
- Saeki, H.**
Abrasion of heavy duty anti-corrosion steel pile due to movement of sea ice [1987, p.353-359, jpn] 44-2551
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Countermeasure against low temperature in telecommunication station in winter [1989, p.551-556, jpn] 44-2914
Durability of coated steel in sea ice regions [1989, p.213-220, eng] 44-1116
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- Ice forces acting on fender piles [1989, p.387-393, jpn] 44-2904
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Ice pressure distribution acting on vertical structures [1986, p.160-165, jpn] 44-2458
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Problems on freezing of port basins at northern Hokkaido facing the Japan Sea [1985, p.95-102, jpn] 44-2299
Safety of traffic on floating ice sheet [1986, p.192-200, jpn] 44-2463
Sea ice-concrete abrasion test [1986, p.564-571, jpn] 44-2500
Some considerations on ice control in a harbor [1988, p.322-329, jpn] 44-2700
Study on bridge design for frozen rivers, Pt.2 [1987, p.318-321, jpn] 44-2545
Testing methods for adfreeze bond strength between ice and various materials [1988, p.306-313, jpn] 44-2698
Total ice force on a cluster of cylindrical piles [1985, p.156-161, jpn] 44-2308
Total ice force on tower structure due to ice jamming [1985, p.168-171, jpn] 44-2310
Vertical ice forces acting on multi-legs offshore structures due to changes in water level [1986, p.166-171, jpn] 44-2459
Vertical ice forces on pile structures due to changes in water level [1985, p.150-155, jpn] 44-2307
- Saeki, N.**
Assessment on deterioration of off-shore concrete exposed to freezing and thawing [1986, p.513-518, jpn] 44-2492
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- Safatov, A.S.**
Effect of surface characteristics of metal oxides on heterogeneous nucleation--formation of a stable phase from vapor: role of the adsorbed film [1989, p.198-202, eng] 44-3260
Effect of surface characteristics of metal oxides on heterogeneous nucleation--model of formation of ice from supercooled water [1989, p.202-206, eng] 44-3261
Influence of surface characteristics of metal oxides on heterogeneous nucleation. Model of ice formation from supercooled water [1989, p.231-236, rus] 44-2568
Influence of the surface characteristics of metal oxides on heterogeneous nucleation. Formation of a stable phase from vapor. Role of the adsorption film [1989, p.225-230, rus] 44-2567
- Safrai, A.S.**
Response of the ocean-atmosphere system to external influences [1990, 304p., rus] 44-2803
- Sagae, H.**
Investigative report on observation characteristics of radar rain and snow gages (Part 2) [1989, p.5-10, jpn] 44-3522
- Sagawa, J.**
Studies on the property of pavement temperature distribution (Part 1) [1986, p.67-107, jpn] 44-3175
Studies on the property of pavement temperature distribution (Part 2) [1987, p.169-212, jpn] 44-3177
- Sahlberg, J.**
Hydrodynamic model for heat contents calculations on lakes and sediments [1987, 54p., eng] 44-1602
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- Saint Mary's River-Little Rapids cut ice boom: winter 1982-1983. Final report**
Saint Mary's River-Little Rapids cut ice boom: winter 1982-1983. Final report [1983, 59p., eng] 44-1635
Saint Mary's River-Little Rapids cut ice boom: winter of 1983-1984. Final report
Saint Mary's River-Little Rapids cut ice boom: winter of 1983-1984. Final report [1984, 50p., eng] 44-1634
- Saisree, L.**
Isolates of *Arthrobacter* from the soils of Schirmacher Oasis, Antarctica [1989, p.225-229, eng] 44-1865
- Saito, A.**
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- Saito, H.**
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- Saito, K.**
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- Saito, M.**
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- Saito, S.**
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- Saito, T.**
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- Saitoh, T.**
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- Sakai, H.**
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- Sakai, K.**
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- Sakai, Y.**
Fundamental experiment on retarding structure for avalanches [1987, p.427-432, jpn] 44-2557
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- Sakamoto, H.**
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- Sakamoto, N.**
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- Sakamoto, Y.**
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- Sakaya, M.**
Snow melting system for the roof using heat pipes [1986, p.585-590, jpn] 44-2503
- Sakitt, M.**
Submarine warfare in the Arctic: option or illusion [1988, 93p., eng] 44-823
- Sakly, M.**
Ice sublimation under forced convection. Determination of the global coefficient of mass transfer [1989, p.633-644, fre] 44-4417
- Sakurai, A.**
Improvement of cold-proof performance of inflatable liferaft [1987, p.190-195, jpn] 44-2537
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- Sakurai, H.**
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- Sakurai, S.**
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Study on snow load for structural design. Pt. 2 [1985, p.89-94, jpn] 44-2298
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Survey of the roof snow depth by aerial photogrammetry with a kite balloon [1989, p.557-560, jpn] 44-2915
- Salama, M.M.**
Proceedings, Vol.3: Materials technology [1989, 739p., eng] 44-1115
- Salamatina, A.N.**
Mathematical model and numerical studies of glacier ice consolidation [1989, p.49-58, rus] 44-3335
Volume relaxation of ice core from Vostok Station borehole [1989, p.59-72, rus] 44-3495
- Salashnikov, M.M.**
New decisions in design projects for underground disposal of industrial liquid wastes from gas-production facilities [1989, p.143-151, rus] 44-4527
- Saleem, M.**
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- Salishvili, T.N.**
Study of ice accretion on a spherical hailstone model in a stream of charged water aerosol [1988, p.136-139, rus] 44-69
- Saling, T.L.**
1400-year oxygen isotope history from the Ross Sea area, Antarctica [1990, p.94-98, eng] 44-4169
- Salitskaia, V.I.**
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- Salm, B.**
On the mechanics of snow slab release [1990, p.287-300, eng] 44-3300
- Salo, S.A.**
Beaufort Sea mesoscale circulation study—final report [1989, 114p., eng] 44-1834
- Salonen, V.P.**
On measuring the length of glacial transport [1989, p.25-32, eng] 44-4504
- Saltzman, E.**
Dominion Range ice core, Queen Maud Mountains, Antarctica—general site and core characteristics with implications [1990, p.11-16, eng] 44-3716
- Salukvadze, M.E.**
Avalanche regime of the Caucasian mountain pass roads and mapping avalanche hazards [1989, p.210-220, rus] 44-1591
- Salvail, J.R.**
Loss of water from Phobos [1989, p.287-290, eng] 44-3387
Water regime of asteroid (1) Ceres [1989, p.97-110, eng] 44-3968
- Samarin, V.K.**
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- Sambles, K.M.**
Modelling seasonally freezing ground conditions. Interim report No.1 [1987, 27p., eng] 44-894
Modelling seasonally freezing ground conditions. Interim report No.2 [1987, 18p., eng] 44-895
- Sami, K.**
Snowpack water losses during melt in a deciduous forest: a comparison of lysimetric and snow course estimates [1989, p.267-271, eng] 44-4025
- Sami, S.M.**
Mass and heat transfer during frost growth [1989, p.158-165, eng] 44-441
- Sammonds, P.R.**
Fracture of multi-year sea ice under triaxial stresses: apparatus description and preliminary results [1989, p.258-263, eng] 44-1200
- Samoiluk, V.I.**
Excessive pressure in the pores of a snow cover [1989, p.169-172, rus] 44-356
- Samoilov, R.S.**
Buffering effect of snow cover to the impact of vehicles on the soil and vegetation cover in the North [1989, p.131-141, eng] 44-2441
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Impact of vehicles on snow, shielding soil and vegetation in the North [1989, p.124-131, rus] 44-346
Some results of determining the strength characteristics of avalanche-generating snow deposited by a snowstorm [1989, p.81-95, rus] 44-1576
Statistical structure of the snow-reserve fields on various surfaces in the polar regions [1989, p.118-124, rus] 44-345
- Samoilov, V.I.**
Effectiveness of using igdante A-6 to crush permafrost and hard rock [1988, p.22-29, rus] 44-3704
- Samoleto, V.A.**
Device for measuring the thermophysical properties of electrically conducting materials at low temperatures [1988, p.100-104, eng] 44-3591
- Samukashvili, R.D.**
Characteristics of correlational relationships between multi-year monthly totals of solid precipitation during the cold period of the year for high altitude zones in the Elbrus Mountain region [1989, p.10-19, rus] 44-1778
Regularities of space-time distribution of air temperature during the cold period in avalanche formation zones in the Elbrus Mountain region [1989, p.19-28, rus] 44-1779
- Samusenko, A.V.**
Frost mounds in the upper Amur basin [1990, p.137-145, rus] 44-4312
- Sanche, L.**
Absolute vibrational excitation cross sections for slow-electron (1-18eV) scattering in solid H₂O [1987, p.4684-4699, eng] 44-1819
Opening of new decay channels for core-excited resonances [1987, p.645-648, eng] 44-1820
- Sand, K.**
Snow-radar: an efficient tool for areal snow pack assessments [1988, p.145-157, eng] 44-244
Snow-radar: an efficient tool for areal snow pack assessments [1988, p.259-271, eng] 44-3324
The snow-radar: a new device for areal snow depth measurements [1987, p.269-284, eng] 44-3316
- Sander, M.**
Theoretical dynamic ice structure interaction model for crushing with extrusion [1990, p.95-101, eng] 44-2212
- Sandersen, F.**
Snow-avalanche maps for use by the Norwegian Army [1989, p.170-174, eng] 44-568
- Sandkvist, J.**
Oil spills in arctic regions—environmental hazards and recovery techniques [1989, p.1281-1296, eng] 44-4430
- Sandoval, N.**
Heterogeneous nucleation of ice at the liquid-liquid interface [1990, p.87-96, eng] 44-2787
- San'ko, A.F.**
Some results of the correlation of Byelorussian Pleistocene glaciations [1989, p.160-166, rus] 44-1919
- Sannikov, S.A.**
Effect of industrial disturbances of geocryological conditions on the reliability of main gas pipelines [1990, p.38-42, rus] 44-4297
Selection of pipeline routes in the Vyngapur River Basin [1990, p.55-60, rus] 44-4301
- Sano, M.**
Automatic weather station at Asuka Camp, Antarctica [1986, p.82-85, jpn] 44-2449
- Santaaja, K.**
Effective approximate algorithm to predict the delayed elastic strain [1988, p.31-43, eng] 44-1127
Mathematical modelling of deformation mechanisms in ice [1990, 215p. + appends., eng] 44-3958
- Santeford, H.S.**
Effects of an ice cover on a backwater or M-1 profile [1988, p.303-312, eng] 44-257
- Santiago, J.**
Low temperature starting of a diesel engine [1984, 80p., eng] 44-1795
Low temperature starting of diesel engines using timed spark discharge [1985, 10p., eng] 44-1794
- Santoki, E.**
Corrosion inhibition by proprietary de-icing chemicals for snow and ice control [1988, p.245-248, jpn] 44-2692
- Santyr, S.**
Evaluation of weld-zone corrosion of shipbuilding steel plates for use in the arctic environment [1988, p.311-321, eng] 44-1024
- Sanz, P.D.**
Contribution to the study of phase variations in aqueous solutions [1990, p.61-68, fre] 44-3644
- Sargent, J.A.**
Cryogenic scanning electron microscopy research applications in Arctic and polar regions [1990, p.51-60, eng] 44-2206
- Sarja, A.**
Development of quality assurance for winter concreting [1985, p.288-307, eng] 44-1992
- Sarkisian, R.M.**
Frontal freezing of ground with frost heave [1985, p.26-31, rus] 44-2367
- Sarrak, V.I.**
Brittle-failure criteria of low-alloy steels during specimen tests for bending [1990, p.213-215, rus] 44-4384
- Sasajima, T.**
Propeller-ice floe interaction of ice capable ships [1985, p.108-113, jpn] 44-2301
- Sasaki, C.**
Performance tests on 100-PS-model small-scale snowplows [1989, p.201-206, jpn] 44-3526
- Sasaki, I.**
Road traffic information system in winter on the route 230 [1988, p.646-652, jpn] 44-2738
- Sasaki, K.**
Abrasion of concrete structures due to a movement of sea ice sheet [1988, p.297-305, jpn] 44-2697
Abrasion of heavy duty anti-corrosion steel pile due to movement of sea ice [1987, p.353-359, jpn] 44-2551
Experimental study on adfreeze bond strength between sea ice and heavy duty anti corrosion steel [1987, p.346-352, jpn] 44-2550
Experimental study on environmental loads acting on hybrid ice trap structure [1989, p.382-386, jpn] 44-2903
Safety of traffic on floating ice sheet [1986, p.192-200, jpn] 44-2463
- Sasaki, M.**
On the utilization of latent heat energy of naturally frozen ice (ice plant) [1987, p.27-30, jpn] 44-2529
Radar image processing of snow stratigraphy [1987, p.173-178, jpn] 44-2536
Radar image processing of the internal structure of snowpack [1988, p.313-320, jpn] 44-1298
- Sasaki, S.**
Calculation of snowmelt and run-off in a river basin [1989, p.358-363, jpn] 44-2899
Drift of snow by wind [1989, p.353-357, jpn] 44-2898
Parametric expressions for compressive strength and bending strength of ice [1989, p.364-369, jpn] 44-2900
- Sasaki, T.**
Presence of heavy metals in urban snow [1985, p.141-149, eng] 44-1931
- Sasamoto, M.**
Calculation of snowmelt and run-off in a river basin [1989, p.358-363, jpn] 44-2899
Drift of snow by wind [1989, p.353-357, jpn] 44-2898
Estimation of the maximal ice thickness in Ogawara Lake [1986, p.138-141, jpn] 44-2454
Ice conditions in the arctic regions [1987, p.305-310, jpn] 44-2543
Investigations of ice ride-up observed at Lake Ogawara [1987, p.322-326, jpn] 44-2546
Parametric expressions for compressive strength and bending strength of ice [1989, p.364-369, jpn] 44-2900
- Satarov, V.N.**
Results of studies carried out by the SSO "Tsentrtuboprovodstrol" on ecological effects of the Yamburg-Tsentrtuboprovodstrol pipelines [1989, p.123-129, rus] 44-4523
- Sato, H.**
Experimental study on wave decay due to floating ice floes [1989, p.410-415, jpn] 44-2907
Performance of nonmetal tire chains in Hokkaido [1989, p.97-102, jpn] 44-3567
Snow melting agents in Hokkaido [1989, p.103-108, jpn] 44-3568
UC-Tyre grip adhesive [1988, p.239-244, jpn] 44-2691
- Sato, K.**
Abrasion of heavy duty anti-corrosion steel pile due to movement of sea ice [1987, p.353-359, jpn] 44-2551
Durability of coated steel in sea ice regions [1989, p.213-220, eng] 44-1116
Experimental study on adfreeze bond strength between sea ice and heavy duty anti corrosion steel [1987, p.346-352, jpn] 44-2550

- Sato, K. (cont.)**
Non-sprinkler road surface snow melting system using heat pumps and heat pipes [1986, p.591-600, jpn] 44-2504
- Sato, M.**
Field experiment of snow-melting for roads by using ground-water [1986, p.573-578, jpn] 44-2501
Forecasting system for snowmelt runoff in the Rumoi River. Part 2 [1989, p.61-66, jpn] 44-3589
Fundamental characteristics of AC flashover on contaminated insulators covered with ice [1989, p.889-896, eng] 44-3434
Measurement of the riming amount on snowflakes [1989, p.355-366, eng] 44-1622
- Sato, N.**
Characteristic features of the snow crystals of low temperature types [1988, p.243-257, eng] 44-1619
Effect of nucleation on the morphology of snow crystals in low temperature conditions [1988, p.259-280, eng] 44-1620
In situ growth experiments of snow crystals of low temperature types observed at Inuvik in arctic Canada [1989, p.333-354, eng] 44-1621
Observation of snow particles in Kinki District, Japan [1989, p.161-169, jpn] 44-1040
- Sato, S.**
Depth of newly fallen snow measured by snow depth sensor [1990, p.25-28, jpn] 44-3403
Distribution of snow cover in Honshu with due consideration of satellite imagery [1990, p.1-11, jpn] 44-3401
Experiment on improving frost heave test methods [1987, p.129-134, jpn] 44-3516
Protection against blowing snow damage on traffic by weather forecast [1986, p.71-75, jpn] 44-2447
Survey of freezing depth throughout Hokkaido [1987, p.123-128, jpn] 44-3515
- Sato, T.**
Development of an advanced snow search radar system [1989, p.569-573, jpn] 44-2918
- Sato, Y.**
Ice pond for use of winter coldness in agriculture—long-term preservation of ice [1989, p.231-236, jpn] 44-2883
- Sato, H.**
Pigment data of sea ice cores collected from fast ice area near Syowa Station, Antarctica, from Mar. 1983 to Jan. 1984 (JARE-24) [1990, 88p., eng] 44-3357
Rate of photosynthesis in phytoplankton under fast ice at Showa Station, Antarctica [1985, p.201, jpn] 44-62
Seasonal change in heterotrophic bacteria under fast ice at Showa Station, Antarctica [1985, p.200, jpn] 44-61
Seasonal changes in heterotrophic bacteria under fast ice near Syowa Station, Antarctica [1989, p.329-333, eng] 44-463
- Sato, I.**
System developments of snow removal in Sapporo [1988, p.174-178, jpn] 44-2680
- Sato, K.**
Influence of the spiked tyres restriction on snow removal costs [1986, p.639-646, jpn] 44-2511
- Sato, M.**
On the stress measurement of the snow-shelter [1986, p.313-318, jpn] 44-2475
- Sato, K.**
Seasonal variation of oxygen isotopic composition of firm cores in the antarctic ice sheet [1990, p.256-260, eng] 44-4205
- Sauer, E.K.**
Ice-thrust features and the Maymont landslide in the North Saskatchewan River valley [1990, p.229-242, eng] 44-3573
- Saul, A.**
Fundamental equation for water covering the range from the melting line to 1273 K at pressures up to 25,000 MPa [1989, p.1537-1564, eng] 44-3698
- Saunders, C.P.R.**
Charge transfer during multiple large ice crystal interactions with a riming target [1989, p.13,103-13,106, eng] 44-451
Charge transfer during single crystal interaction with a rimed target [1989, p.13,099-13,102, eng] 44-450
Ice particle charge transfer studies. Final report Aug. 1985-July 1987 [1987, 130p., eng] 44-1285
- Savage, M.L.**
Glacial history of the Ross Sea region based on DSDP Leg 28 Sites 272 and 273 [1982, 187p., eng] 44-3184
- Savage, S.B.**
Flow of granular materials [1989, p.241-266, eng] 44-1090
Some analytical and experimental studies of granular avalanche flows [1989, p.109-116, eng] 44-557
Similarity solutions for granular avalanches of finite mass with variable bed friction [1989, p.239-265, eng] 44-3928
- Savattagin, L.M.**
Temperature regime of the Akademiy Nauk Glacier, Severnaya Zemlya [1989, p.134-138, rus] 44-348
- Savel'ev, B.A.**
Artificial freezing-on of engineering ice-soil structures [1989, p.497-503, eng] 44-926
Physico-chemical mechanics of frozen rocks [1989, 214p., rus] 44-760
- Possibility of building ice platforms on shelves in the arctic seas [1985, p.58-62, rus] 44-2374
- Savel'eva, E.M.**
Physical chemical processes in soil cryogenesis [1989, p.264-268, rus] 44-3557
- Savrasov, V.V.**
A method for evaluation of fracture resistance in metals [1990, p.207-210, rus] 44-4382
- Savvinov, D.D.**
Hydrothermal problems of frozen soils [1988, 126p., rus] 44-1958
Hydrothermal regime of frozen flood-plain soils [1988, p.4-18, rus] 44-1959
Hydrothermal regime of frozen pale yellow soils during irrigation [1988, p.18-30, rus] 44-1960
Physical characteristics and hydrothermal regime of the soils in the Amga River valley [1980, 99p., rus] 44-1492
- Savvinov, G.N.**
Biological activity of frozen meadow-chenozem soils in the Amga River valley [1988, p.37-40, rus] 44-1962
Moisture and temperature dynamics of frozen soils with the sowing of fodder crops in the Amga River valley [1988, p.49-59, rus] 44-1964
Physical characteristics and hydrothermal regime of the soils in the Amga River valley [1980, 99p., rus] 44-1492
- Savvinov, I.T.**
Methods for increasing resistance to cold-crack formation in T-joints during welding in winter [1990, p.202-206, rus] 44-4381
- Sawada, K.**
Development of snow-drain's cover made of FRP [1989, p.301-306, jpn] 44-2894
Plans for snow drainage ditches [1985, p.264-269, jpn] 44-2326
Snow drainage using seawater [1987, p.393-398, jpn] 44-2552
Snow melting system using a spring water in underground space [1986, p.606-610, jpn] 44-2506
Study for improving the quality of snow drain channel [1988, p.627-633, jpn] 44-2736
- Sawada, N.**
Snowmelt in the development of mountain land into farmland. Part 4: comparison of runoff from snowmelt and rainfall [1989, p.115-118, jpn] 44-3631
- Sawada, S.**
Creation and conservation of frozen ground by the heat pipes [1987, p.16-21, jpn] 44-2527
- Sawaguchi, S.**
Outline of the geomorphological expedition to Svalbard, 1988-1989 [1990, p.215-234, eng] 44-3066
- Sawase, K.**
Heatpump system using air source to heat the water sprinkled for melting snow on the track [1989, p.136-142, eng] 44-3303
- Saxena, R.K.**
Mixing of acid meltwater with groundwater in a forested basin in Finland [1989, p.251-258, eng] 44-3039
- Saxena, V.K.**
Ice-forming nuclei at Palmer Station, Antarctica [1989, p.266-267, eng] 44-662
- Saxton, K.E.**
Frozen soil impacts on agricultural, range, and forest lands—an introduction [1990, p.1-3, eng] 44-2959
Frozen soil impacts: research needs [1990, p.220-223, eng] 44-2987
Soil freezing and thawing simulation with the SHAW model [1990, p.77-86, eng] 44-2969
- Sayama, S.**
Acoustical imaging under the fallen snow [1988, p.152-156, jpn] 44-2676
Detection method of snow flow removed by rotary snow remover [1989, p.167-170, jpn] 44-2874
Snow fall measurement system developing at GIDLH [1988, p.157-163, jpn] 44-2677
Snow fall strength measurement using snow pressure pillow system [1989, p.561-563, jpn] 44-2916
- Sazhin, V.S.**
Interaction between shallow foundations in tamped (punched) trenches and heaving soil [1990, p.152-156, eng] 44-3255
- Sazonov, K.E.**
Estimating the probability of reducing the revolution rate and jamming of ship propellers in ice [1987, p.64-68, rus] 44-3217
Method for calculating the resistance of ice to ship motion [1984, p.28-36, rus] 44-3215
- Scanlon, J.M.**
Cold-weather concreting in the USA [1985, p.123-137, eng] 44-1979
- SCAR Working Group on Logistics Symposium, Hobart, Australia, Sep. 1-2, 1988**
Space and airborne technology applications to antarctic operations [1989, 159p., eng] 44-3444
- Scarlato, O.A.**
History of development of the arctic marine ecosystems and their functional peculiarities [1990, p.196-206, eng] 44-4115
- Scarzello, J.F.**
Electromagnetic noise collection and processing buoy, "Arctic Research Buoy" [1989, p.260-265, eng] 44-3152
- Scavuzzo, R.J.**
Experimental evaluation of the tensile strength of impact ice [1989, p.1205-1208, eng] 44-1512
- Schanke, J.C.**
Direction toward improved streamflow forecasting in the Western mountains [1989, p.79-89, eng] 44-507
- Schababerle, R.**
Influence of freeze-thaw cycles on clay structures [1989, p.573-575, eng] 44-941
- Schaefer, J.A.**
Measurements of icing hardness [1989, p.89-93, eng] 44-832
- Schaeffer, J.**
Simulations of the general circulation of the Martian atmosphere 1. Polar processes [1990, p.1447-1473, eng] 44-2292
- Schaerer, P.**
Avalanche-hazard index [1989, p.241-247, eng] 44-582
Extreme avalanche run-out: data from four mountain ranges [1989, p.180-184, eng] 44-570
- Schaerer, P.A.**
Observations on avalanche at Rogers Pass, British Columbia, Canada, in 1989 [1989, p.37-48, jpn] 44-2633
- Schanda, E.**
Microwave signatures of bare soil [1989, p.307-316, eng] 44-2604
- Scharfen, G.R.**
Antarctic mosaic compiled from DMSP imagery [1989, p.302, eng] 44-663
World Data Center-A for Glaciology/National Snow and Ice Data Center antarctic-related activities for 1987 [1988, p.218-219, eng] 44-2141
- Scheduik, M.**
One-dimensional mixed layer model beneath the Ross Ice Shelf with tidally induced vertical mixing [1990, p.29-42, eng] 44-2357
- Scheifele, P.M.**
Arctic ice attenuation model study [1987, 36p., eng] 44-851
- Scherer, R.P.**
Multiple Miocene marine productivity events in West Antarctica as recorded in Upper Miocene sediments beneath the Ross Ice Shelf (Site J-9) [1989, p.91-115, eng] 44-1941
- Schildrop, B.**
Simulation of snow-avalanche flow in run-out zones [1989, p.218-225, eng] 44-578
- Schiffries, C.M.**
Liquid-absent aqueous fluid inclusions and phase equilibria in the system CaCl₂-NaCl-H₂O [1990, p.611-619, eng] 44-3366
- Schlegel, M.G.**
Use of weathered rock for engineered fill in permafrost regions of Alaska [1990, p.379-388, eng] 44-3685
- Schloesser, D.W.**
Submersed macrophyte communities before and after an episodic ice jam in the St. Clair and Detroit rivers [1989, p.2364-2370, eng] 44-1527
- Schlosser, P.**
Oxygen 18 and helium as tracers of ice shelf water and water-ice interaction in the Weddell Sea [1990, p.3253-3263, eng] 44-3185
- Schluessell, P.**
SST in polynyas: a case study [1990, p.933-945, eng] 44-4142
- Schmid, H.**
Propulsion machinery concepts for icebreaking ships [1990, p.Q/1-Q/23, eng] 44-3479
- Schmid, W.D.**
Winter ecology [1986, p.335-340, eng] 44-278
- Schmidbauer, N.**
Light hydrocarbons in the Norwegian Arctic [1989, p.2471-2482, eng] 44-2260
- Schmidlin, T.W.**
Assessment of NWS surface-measured snow water equivalent data based on remotely-sensed data in the Northern Plains [1989, p.208-212, eng] 44-4014
Longest sub-freezing period in Newfoundland winters [1988, p.35-42, eng] 44-4273
- Schmidt, H.**
Propagation of seismic and acoustic waves in horizontally stratified media with stochastically rough interfaces [1987, p.473-483, eng] 44-1742
- Schmitt, J.M.**
Proteins from frost-hardy leaves protect thylakoids against mechanical freeze-thaw damage in vitro [1990, p.416-419, eng] 44-2749
- Schmok, J.P.**
Ice loss in the ablation area of a Himalayan glacier, studies on Miar Glacier, Karakoram Mountains, Pakistan [1989, p.289-293, eng] 44-592
Lacustrine sedimentary record of ice-dammed Neoglacial Lake Alsek [1989, p.2092-2105, eng] 44-2273
- Schmugge, T.**
Remote sensing of snow and evapotranspiration [1985, 167p., eng] 44-1999
- Schneider, P.**
Depression of freezing temperature of water and water solutions in porous materials [1989, p.2644-2647, eng] 44-2349

- Schneider, S.H.**
Asynchronous coupling of ice-sheet and atmospheric forcing models [1990, p.247-251, eng] 44-4203
- Schnell, R.C.**
Lidar-derived particle concentrations in plumes from arctic leads [1990, p.9-12, eng] 44-4151
Lidar detection of leads in arctic sea ice [1990, p.119-123, eng] 44-3833
NOAA WP-3D instrumentation and flight operations on AGASP-II [1989, p.3-16, eng] 44-2165
Size distribution of large aerosol particles during AGASP-II: absence of Mt. Augustine eruptive particles in the Alaskan Arctic [1989, p.2495-2499, eng] 44-2262
- Schoerner, W.**
Wastewater purification by solvent induced precipitation using freezing technology to recover solvent. Final report [1987, 54p., eng] 44-904
- Scholz, H.**
Contributions to the early Holocene deglaciation history in central West Greenland [1989, p.22-41, eng] 44-1001
- Schomburg, O.**
Radio echo sounding in north Victoria Land, Antarctica [1989, p.111-117, eng] 44-3050
- Schoonmaker, J.S.**
Beam scattering measurements in young sea ice [1990, p.53-57, eng] 44-3818
Laboratory measurements of optical beams in young sea ice [1989, p.1606-1613, eng] 44-3625
- Schrag, R.L.**
Electropulse deicing: electrodynamic solution by discrete elements [1989, p.547-553, eng] 44-40
Theoretical analysis of the electrical aspects of the basic electro-pulse problem in aircraft de-icing applications. Final report [1987, 80p., eng] 44-1101
- Schrieber, C.F.**
Effect of hostile marine environments on the Al-Zn-In-Si sacrificial anode [1988, p.70-77, eng] 44-1869
- Schröder-Adams, C.J.**
Recent arctic shelf foraminifera: seasonally ice covered vs. perennially ice covered areas [1990, p.8-36, eng] 44-2435
- Schroder, L.J.**
Chemical composition of precipitation, dew and frost, and fog in Denver, Colorado [1989, p.83-90, eng] 44-3037
- Schroeder, J.**
Ice-push bedrock and its syngenetic till at Pont-Rouge, Québec [1990, p.33-42, fre] 44-3531
- Schroeder, J.A.**
Remote detection of aircraft icing conditions using microwave radiometers [1986, 34p., eng] 44-3332
- Schuettkopf, H.**
Pb-210 in ground-level air and snow in the environment of the Karlsruhe Nuclear Research Center [1988, 16p., eng] 44-959
- Schulson, E.M.**
Effect of the specimen-platen interface on internal cracking and brittle fracture of ice under compression: high-speed photography [1989, p.378-382, eng] 44-1899
Fractography of ice [1989, p.1193-1194, eng] 44-1511
Fracture toughness of ice in contact with salt water [1989, p.191-192, eng] 44-1543
Fracture toughness of porous ice with and without particles [1990, p.241-246, eng] 44-2230
Notch-strengthening effect in fresh-water ice [1990, p.107-111, eng] 44-3729
- Schulson, M.E.**
Fracture toughness of porous ice with and without particles [1990, p.241-246, eng] 44-2230
- Schultz, P.H.**
Isidis basin: site of ancient volatile-rich debris layer [1989, p.358-381, eng] 44-378
- Schumacher, P.W.**
Comparison of four volatile organic compounds in frozen and unfrozen silt [1990, 9p., eng] 44-3991
Development of an analytical method for the determination of explosive residues in soil. Part 3. Collaborative test results and final performance evaluation [1989, 89p., eng] 44-3757
Liquid chromatographic method for determination of extractable nitroaromatic and nitramine residues in soil [1989, p.890-899, eng] 44-2345
- Schunke, E.**
Periglacial forms and morphodynamics in southern Jameson Land, East Greenland. (Results of the 1980 East Greenland Expedition by the Academy of Sciences in Göttingen. Part 1) [1986, 142p., ger] 44-484
- Schutz, C.**
Global annual snow accumulation by months [1988, 85p., eng] 44-2059
- Schuytema, G.S.**
Effects of freezing on toxicity of sediments contaminated with DDT and endrin [1989, p.883-891, eng] 44-1205
- Schwartz, J.A.**
Electro-impulse de-icing research (fatigue and electromagnetic interference tests) [1989, 63p., eng] 44-716
- Schwarz, J.**
Comparative model tests in ice of a Canadian Coast Guard R-class icebreaker [1989, p.1-1-1/18, eng] 44-3984
Comparative model tests in ice of a Canadian Coast Guard R-class icebreaker [1990, p.31-52, eng] 44-4421
- Ice engineering at Hamburgische Schiffbau-Versuchsanstalt [1989, p.199-212, eng] 44-2036**
- Schweiger, A.J.**
Classification of merged AVHRR and SMMR arctic data with neural networks [1989, p.1331-1338, eng] 44-3777
DMSP-SSM/I (Defense Meteorological Satellite Program-Special Sensor Microwave Imager) NASA algorithm validation using primarily LANDSAT and secondarily DMSP and/or AVHRR visible and thermal infrared satellite imagery. Annual progress report [1988, 108p., eng] 44-709
Multisensor approach to sea ice classification for the validation of DMSP-SSM/I passive microwave derived sea ice products [1990, p.75-82, eng] 44-3398
- Schweizer, J.**
Friction at the base of a glacier [1989, 181p., eng] 44-3951
- Science Applications International Corporation Polar Oceans Associates**
Studies of sea ice thickness and characteristics from an arctic submarine cruise. Phase 3. Progress report Oct. 1, 1988 - June 30, 1989 [1989, 34p. + appends., eng] 44-3374
- Science Council of Canada**
Harnessing science and technology for cold regions [1989, 28p., eng] 44-1828
- Sciortino, F.**
Lifetime of the bond network and gel-like anomalies in super-cooled water [1990, p.1686-1689, eng] 44-3629
- Scott, N.A.**
Retrieval of mesoscale meteorological parameters for polar latitudes (MIZEX and ARCTEMIZ campaigns) [1989, p.205-212, eng] 44-1014
- Scott, P.T.**
Altered and enhanced iodargyrite with bismuth thiodide for use in precipitation enhancement operations [1987, 61p., eng] 44-1270
- Scott Polar Research Institute**
Britain in the Arctic: a directory of activities and interests [1990, 112p., eng] 44-3227
- Scott, V.**
Toxaphene and other organochlorines in Arctic Ocean fauna: evidence for atmospheric delivery [1989, p.307-313, eng] 44-1933
- Scrivenner, D.**
Gorbachev's Murmansk speech: the Soviet initiative and Western response [1989, 75p., eng] 44-315
- Scullion, T.**
Use of the multidepth deflectometer for deflection measurements [1989, p.186-196, eng] 44-1657
- Sea ice. June 1985-October 1987. (Citations from the INSPEC Information Services for the Physics and Engineering Communities Database)**
Sea ice. June 1985-October 1987. (Citations from the INSPEC Information Services for the Physics and Engineering Communities Database) [1987, 102p., eng] 44-1212
- Sear, C.B.**
Concurrent remote sensing of arctic sea ice from submarine and aircraft [1989, 20p., eng] 44-3376
- Sebaaly, P.E.**
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Permafrost geophysics in northern Quebec: review and recent developments [1987, p.127-140, fre] 44-899
Permafrost in northern Quebec: state of knowledge and research needs [1987, p.141-152, fre] 44-900
Preliminary data on the permafrost thermal regime in Nunavik communities of Quebec [1990, p.207-213, fre] 44-3664
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Polyhedral clathrate hydrates of a strong base: phase relations and crystal structures in the system tetramethylammonium hydroxide-water [1990, p.139-157, eng] 44-2777
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Late Weichselian/Devensian ice sheets in the North Sea and adjacent land areas [1988, p.371-384, eng] 44-82
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Characteristics of freezing heat transfer in a 180 degree bend with a rectangular cross section [1988, p.87-103, eng] 44-689
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Forecasting system for snowmelt runoff in the Rumoi River. Part 2 [1989, p.61-66, jpn] 44-3589
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Bearing capacity analyses of the foundations of offshore gravity structures by finite element method [1988, p.419-429, eng] 44-1159
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Report on meteorological research observations by the 29th Japanese Antarctic Research Expedition in 1988 [1990, p.46-75, jpn] 44-3741
- Selcukoglu, Y.**
Wastewater purification by solvent induced precipitation using freezing technology to recover solvent. Final report [1987, 54p., eng] 44-904
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Major ions and scavenging of sulphate in the Norwegian Arctic [1989, p.2463-2469, eng] 44-2259

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Effect of hypomagnetic fields on the dielectric losses in water and ice [1988, p.153-155, eng] 44-2427
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Density-functional theory of freezing for quantum systems: the Wigner crystallization [1990, p.303-306, eng] 44-2121
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Past three million years. Evolution of climatic variability in the North Atlantic region [1988, 278p., eng] 44-10
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Automated systems aid the Soil Conservation Service in predicting and managing for drought [1990, p.41-46, eng] 44-3028
Proceedings of the 57th annual meeting, Fort Collins, CO, April 18-20, 1989 [1989, 150p., eng] 44-497
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Chaotic dynamics in continuous-mode icebreaking [1989, p.139-146, eng] 44-3022
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Snow cover, snowmelt and runoff in the Himalayan river basins. Final technical report [1988, 37p., eng] 44-624
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Basal ice formation and deformation: a review [1989, p.529-558, eng] 44-2094
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- Shekhtovtsov, A.A.**
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- Shibata, T.**
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Mathematical models for ice accretion on conductors using free streamline theory. Part 1: Single conductor [1988, p.217-236, eng] 44-2394
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Meteorological observations at Syowa Station in 1985 by the 26th Japanese Antarctic Research Expedition [1989, p.191-219, jpn] 44-1470
- Shimaraev, V.N.**
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- Shimizu, H.**
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Study on the mechanism of avalanche release in the Nishio Pass area, Hokkaido, Japan. Pt. 2 [1988, p.35-44, jpn] 44-730
- Shimizu, M.**
Characteristics of heat balance on snow-accumulated roads [1989, p.195-198, jpn] 44-2879
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- Shimizu, T.**
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460 MPa class yield strength steel plates for arctic offshore structures [1988, p.73-76, jpn] 44-1311
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Outline of the geomorphological expedition to Svalbard, 1988-1989 [1990, p.215-234, eng] 44-3066
- Shimomura, C.**
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Fundamental experiment on retarding structure for avalanches (Vol.2) [1988, p.196-201, jpn] 44-2684
Fundamental experiment on retarding structure for avalanches (Vol.3) [1989, p.126-131, jpn] 44-2867
Model tests of retarding structures for avalanches and its numerical simulation [1986, p.278-283, jpn] 44-2469
Snowfall forecasting method and its accuracy [1988, p.136-141, jpn] 44-2673
Snowfall forecasting method and its accuracy (Vol.2) [1989, p.95-100, jpn] 44-2862
- Shimura, K.**
Development of snow survey by aerial photogrammetry [1988, p.131-135, jpn] 44-2672
- Shin, R.T.**
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- Shina, T.**
Measurement of snowflake size and falling velocity by image processing [1989, p.48-54, eng] 44-1801
- Shinbori, K.**
Automatic close-up system of snow particles [1988, p.231-235, jpn] 44-743
- Shinjo, H.**
Report of the low cost road-heating system by city gas [1989, p.183-188, jpn] 44-2877
Research and development for gas road snow melting system—a field test in Sapporo City [1988, p.399-404, jpn] 44-2710
- Shinn, R.A.**
Climate sensitivity to continental ice sheet size and configuration [1989, p.1517-1537, eng] 44-1947
- Shinohara, Y.**
Redistribution function applicable to a dynamic model of sea ice [1990, p.13,423-13,431, eng] 44-4546
- Shipitsyna, L.I.**
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- Shirai, Y.**
Comments on the prediction of ice crystal size distribution in a continuous crystallizer [1990, p.1147-1148, eng] 44-3535
- Shiraki, M.**
Statistical relationship between the snowfall amount and the appearance of tropospheric mid-level jet [1988, p.1-2, eng] 44-1612
- Shirasawa, K.**
Distribution of pack ice off Okhotsk Sea coast of Hokkaido observed with Sea Ice Radar Network, January-April, 1989 [1989, p.71-82, jpn] 44-3045
Measurements in the boundary layer under landfast ice in the southeast Hudson Bay, Canada [1988, p.213-221, jpn] 44-741
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Measurements of an atmospheric boundary layer around the air-sea-ice observation tower [1988, p.177-185, jpn] 44-738
Measurements of an atmospheric boundary layer around the air-sea-ice observation tower. 1989 winter experiments [1989, p.79-89, jpn] 44-3127
Measurements of infrared emissivity of thin sea ice [1988, p.187-195, jpn] 44-739
On the salinity and the crystallographical structure of sea ice near river mouth [1988, p.197-211, jpn] 44-740
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- Shirikhin, I.U.N.**
Characteristics of the starter in a two-phase thermosiphon with a long evaporative zone [1989, p.114-118, rus] 44-2161
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- Shirman, V.G.**
Optimal disintegration method of frozen and thawed sandy and clayey soils [1989, p.962-964, rus] 44-2248
- Shirochikov, A.V.**
Total ozone content variability in the north polar area based on data from the expedition aboard the nuclear icebreaker *Sibir* (May-June 1987) [1989, p.1099-1103, rus] 44-1758
- Shirooka, R.**
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- Shishkin, V.I.A.**
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- Shishkin, V.V.**
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Geological, soil and vegetation characteristics of the areas of gas condensate fields in the northern Tyumen' region. Review [1989, 49p., rus] 44-3989
Making oil and gas development in arctic regions ecological [1990, p.19-22, rus] 44-2657
Problems of the technology and organization of environmental protection during the construction of oil and gas industry facilities in the arctic regions. Review [1990, Var.p., rus] 44-3990
- Shivaji, S.**
Isolates of *Arthrobacter* from the soils of Schirmacher Oasis, Antarctica [1989, p.225-229, eng] 44-1865
- Shiwaku, T.**
460 MPa class yield strength steel plates for arctic offshore structures [1988, p.73-76, jpn] 44-1311
- Shkhinek, K.N.**
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- Shkil'ko, V.G.**
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- Shmakin, A.B.**
Meteorological factors on the formation of snowmelt runoff on the northern slope of the Caucasus [1989, p.160-164, rus] 44-354
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Characteristics and classification of volcanic-ash-derived soils in Alaska [1989, p.8-28, eng] 44-2138
- Shonin, O.B.**
Designing E-plane funnels, used in the combined method of working frozen ground [1989, p.1-4, rus] 44-1381
- Shoop, S.A.**
Thawing soil strength measurements for predicting vehicle performance [1989, 18p., eng] 44-3933
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- Shpakov, V.S.**
Mechanics of ice crushing by propeller blades [1983, 10p., eng] 44-605
- Shpolianskaia, N.A.**
Possibility of freezing sea bottom deposits in the arctic seas [1989, p.72-78, rus] 44-2612
- SHRP takes aim at snow, ice control**
SHRP takes aim at snow, ice control [1988, p.48-49, eng] 44-1089
- Shternin, S.L.**
Effect of phase conversion on viscosity of metastable steel for cryogenic purposes [1990, p.243-247, rus] 44-4391
- Shtul'man, L.G.**
Study of hail processes developing in the northern Caucasus at night [1989, p.130-136, rus] 44-877
- Shtul'man, N.G.**
Study of hail processes developing in the northern Caucasus at night [1989, p.130-136, rus] 44-877
- Shubin, G.B.**
Study of the process of heating and freezing excavated material through a metallic plate [1988, p.31-36, rus] 44-1380
- Shubin, V.S.**
Prospects of protecting Magadan district highways from avalanches [1989, p.33-36, rus] 44-1567
- Shuchman, R.A.**
Ice thickness radar measurements during CEAREX [1989, p.451-460, eng] 44-3162
MIZEK (Marginal Ice Zone Experiment) 1987 SAR (synthetic aperture radar) data summary: informal information report [1988, 137p., eng] 44-701
Remote sensing of the polar oceans [1990, p.123-169, eng] 44-3977
Surface expressions of eddies within the ice pack [1990, p.3-4, eng] 44-3351
- Shuganov, L.Zh.**
Analyzing the physical effect of actions on hail processes [1989, p.133-137, rus] 44-820
- Shugurov, V.F.**
Gas survey in the snow of Kuznetsk basin [1989, p.182-183, rus] 44-2605
- Shul'ginov, B.S.**
Fatigue resistance of steels and their welded joints with regard to mining and transportation industry in the Far North [1990, p.248-253, rus] 44-4392
- Shul'ts, A.G.**
Mass balance of the Korzhenevskii glacier [1989, p.38-47, rus] 44-1387
- Shur, N.M.**
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- Shurdumov, I.U.B.**
Features of the snow cover distribution on glaciers in winter and spring on the southern slope of Elbrus Mountain [1989, p.154-160, rus] 44-353
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Sea ice behavior at elastic, elasto-plastic and plastic stages of its deformation [1989, 6p., eng] 44-1498
- Shutlin, S.V.**
Model of sea ice cover in the arctic basin [1988, p.96-116, rus] 44-1939
- Shutov, V.A.**
Hydrophysical studies of soils and snow cover [1989, p.205-220, rus] 44-3912
Method of calculating replenishment of soil moisture reserves of agricultural fields based on water balance model [1989, p.64-71, eng] 44-1837
- Shuzui, H.**
Relation of sliding displacement with snow: Kunimi landslide area in Toyama Prefecture [1988, p.13-18, jpn] 44-3436
- Shvedov, M.A.**
Brittle-failure criteria of low-alloy steels during specimen tests for bending [1990, p.213-215, rus] 44-4384
- Shvedov, S.V.**
Effect of anti-hail efforts on the polluted atmosphere and of deposits by hail modification products [1989, p.145-151, rus] 44-822
- Shvets, V.M.**
Results of the first All-Union Congress of engineering geologists, hydrogeologists and geocryologists [1989, p.3-20, rus] 44-1252
- Shyam Sunder, S.**
Crack nucleation due to elastic anisotropy in polycrystalline ice [1990, p.29-47, eng] 44-3538
- Sibgatullin, N.R.**
Evolution of wave packets in three-wave interaction in a heavy liquid under an ice cover [1988, p.872-879, eng] 44-1517
Influence of wave processes and instabilities under sea ice cover on formation of pools of open water [1990, p.151-152, eng] 44-4083
- Siddalingaiah, H.**
Comparison of *in situ* and satellite-derived reflectances of Forbindeis Glacier, Greenland [1990, p.493-504, eng] 44-3350
- Siddiqui, Z.**
More effective cold, wet-weather patching materials for asphalt pavements. Final report, Aug. 84-Sep. 87 [1988, 152p., eng] 44-1106
- Sidle, R.C.**
Stream development in Glacier Bay National Park, Alaska, U.S.A. [1989, p.350-363, eng] 44-2008
- Sidorov, I.U.I.**
Rocks and soil of the martian surface [1989, 222p., rus] 44-2797
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Features of ballasting and straightening of railroad tracks [1990, p.5-6, rus] 44-4482
- Siegel, D.I.**
Recharge-discharge function of wetlands near Juneau, Alaska: part 1. Hydrogeological investigations [1988, p.427-434, eng] 44-3877
Recharge-discharge function of wetlands near Juneau, Alaska: part 2. Geochemical investigations [1988, p.580-586, eng] 44-3878
- Siegenthaler, U.**
Stable oxygen and carbon isotope analyses [1986, p.407-422, eng] 44-2043
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Size distribution of large aerosol particles during AGASP-II: absence of Mt. Augustine eruptive particles in the Alaskan Arctic [1989, p.2495-2499, eng] 44-2262
- Siew, K.W.**
Resilient properties of Arkansas subgrades. Final report [1988, 116p., eng] 44-2814
- Siewert, R.M.**
Unassisted cold starts to -29 C and steady-state tests of a direct-injection stratified-charge (DISC) engine operated on neat alcohols [1987, p.7.357-7.372, eng] 44-1195
- Sigurdsson, H.**
Depletion of H₂O₂ in a Greenland ice core: implications for oxidation of volcanic SO₂ [1990, p.45-48, eng] 44-4036
- Sihvola, A.H.**
Self-consistency aspects of dielectric mixing theories [1989, p.403-415, eng] 44-1324
- Silkonis, W.G.**
Effect of area distribution with altitude on glacier mass balance—a comparison of North and South Kilwetli glaciers, Washington State, U.S.A. [1990, p.278-282, eng] 44-4210
- Silin, P.N.**
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CBS/ICE: a computer program for simulation of ice storage systems [1989, p.1206-1213, eng] 44-446
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- Simakov, G.V.**
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Simple parameterization of ice leads in a general circulation model, and the sensitivity of climate to change in antarctic ice concentration [1990, p.266-269, eng] 44-4207
- Simmons, G.M., Jr.**
Ice thickness changes on Lake Hoare, southern Victoria Land, Antarctica [1989, p.235-236, eng] 44-658
Sand/ice interactions and sediment deposition in perennially ice-covered antarctic lakes [1989, p.237-240, eng] 44-659
- Simmons, J.V.**
Reassessment of transport mechanisms of some rock avalanches in the Mackenzie Mountains, Yukon and Northwest Territories, Canada [1990, p.129-144, eng] 44-3288
- Simmons, R.J.**
Meltwater drainage from temperate glacial ice: Burroughs Glacier, southeast Alaska [1990, 58p., eng] 44-3265
- Simms, K.L.**
Estimating the effects of rain and snow on potential reactor accident consequences [1986, p.235-242, eng] 44-2348
- Simon, V.**
Energy and mass model of snow cover suitable for operational avalanche forecasting [1989, p.333-342, eng] 44-1894
- Simonov, I.U.A.**
Approximate determination of the principal characteristics of icebreakers and ice-strengthened ships [1989, 11p., eng] 44-3120
Development trends in icebreakers and ice-going transport ships [1989, p.3-6, rus] 44-3210
- Simonova, L.N.**
Sorption concentration of mercury (II) on silica gel chemically modified with 2,5-dimercapto-1,3,4-thiadiazole [1987, p.1047-1050, rus] 44-2054
- Simonson, J.M.**
System NaCl-CaCl₂-H₂O: I. the ice liquidus at 1 atm total pressure [1990, p.603-610, eng] 44-3365
- Simpson, J.**
Ice-water saturation adjustment [1989, p.231-235, eng] 44-264
- Singh, A.**
Snowmelt runoff studies in upper Yamuna basin [1989, p.213-218, eng] 44-4015
- Singh, S.K.**
Tests of ice crushing on a flexible structure [1990, p.89-94, eng] 44-2211
- Sinha, N.K.**
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Failure stress and failure modulus of natural ice island ice under uniaxial compression at constant strain rates [1990, p.223-229, eng] 44-2227
Finite element calculations of ice pressure on rigid structures [1990, p.75-81, eng] 44-2209
Is minimum creep rate a fundamental material property [1990, p.283-288, eng] 44-2236
Proceedings. Vol.4 [1990, 339p., eng] 44-2199
Theoretical dynamic ice structure interaction model for crushing with extrusion [1990, p.95-101, eng] 44-2212
- Siniaev, A.K.**
"Taymyr" shallow-draft atomic icebreaker [1989, p.6-9, rus] 44-3211
- Sin'ko, N.V.**
Relation between the effect of artificial increase of winter precipitation and the parameters of seeded clouds [1989, p.134-138, rus] 44-4234
- Sirin, A.A.**
Model and algorithm for calculating river flow formation in a forest drainage area [1988, 107p., rus] 44-1883
- Sisterson, D.L.**
Snowfall Chemistry Collector Intercomparison Test (SCCIT) [1989, p.477-488, eng] 44-2750
- Sitnikov, I.V.**
Electric preheating of concrete and the nature of the formation of temperature and strength fields in concrete members under the influence of environmental and technological factors [1985, p.319-330, eng] 44-1994

- Sludikova, K.O.**
Estimating snow moisture reserve and soil humidity from cosmic rays [1988, p.163-165, eng] 44-1105
- Sivanesan, S.**
Synthesis and X-ray diffraction analysis of AgI-CuBr solid solutions for ice nucleation [1990, p.263-265, eng] 44-3400
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X-ray analysis and ice nucleating behavior of the AgI-CuI-KI system [1989, p.4160-4163, eng] 44-1379
- Sivapathasundaram, R.**
Modeling snowfall-to-snowmelt delay [1989, p.203-211, eng] 44-2192
- Skachkov, I.U.B.**
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- Skagset, O.**
NOAA AVHRR observations during the Marginal Ice Zone Experiment, between Spitsbergen and Greenland, June 7 to July 18, 1984. Final report [1988, 130p., eng] 44-840
- Skelton, P.L.I.**
Approximate prediction of ice accretion on an overhead transmission line which rotates with constant angular velocity [1988, p.23-35, eng] 44-2393
Growth limits of rime ice accretion on fixed conductors [1989, p.247-254, eng] 44-901
Mathematical models for ice accretion on conductors using free streamline theory. Part I: Single conductor [1988, p.217-236, eng] 44-2394
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- Skoloud, O.**
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- Skol'tsov, V.I.**
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- Skrabiina, P.N.**
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Thermal regime of the soils near the northern Yenisei [1989, 175p., rus] 44-1854
- Skrabiina, T.G.**
Differential-scanning calorimetry study of low-temperature properties of oils and gases [1989, p.179-183, eng] 44-2276
- Skrupnik, I.U.D.**
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- Skrupnik, N.V.**
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- Skriver, H.**
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Class A prediction of arctic caisson performance - discussion and reply [1990, p.299-302, eng] 44-4281
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- Slaughter, C.W.**
Use of off-road vehicles and mitigation of effects in Alaska permafrost environments: a review [1990, p.63-72, eng] 44-3049
Water quality and streamflow in the Caribou-Poker Creeks Research Watershed, central Alaska, 1979 [1987, 37p., eng] 44-1084
- Slaymaker, O.**
Horton River breakthrough and resulting geomorphic changes in a permafrost environment, Western Arctic coast, Canada [1989, p.171-184, eng] 44-2620
- Sleds and sledding. January 1970-October 1988 (Citations from the U.S. patent database)**
Sleds and sledding. January 1970-October 1988 (Citations from the U.S. patent database) [1988, 41p., eng] 44-795
- Slepak, M.E.**
Frozen soil deformation and failure under different loading [1989, p.465-471, eng] 44-921
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Applying explosion processes to structural steels for increasing resistance to brittle failure [1990, p.264-269, rus] 44-4396
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Increasing the strength of welded structures for the North [1989, 220p., rus] 44-1008
- Sleptsov, V.I.**
Hydrothermal regime of frozen pale yellow soils during irrigation [1988, p.18-30, rus] 44-1960
- Slepyshev, V.E.**
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- Sletten, R.S.**
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- Slunga, E.**
General report on frost action in soil [1989, p.415-417, eng] 44-917
- Sluzewer, A.**
Groundwater flow effects in processes of soil freezing [1989, p.399-409, eng] 44-48
- Smagin, V.M.**
On chemical composition of atmospheric precipitation in the Arctic [1990, p.229-235, eng] 44-4094
- Small boat harbor Larsen Bay, Alaska. Draft detailed project report with environmental assessment**
Small boat harbor Larsen Bay, Alaska. Draft detailed project report with environmental assessment [1989, 153p. + append., eng] 44-439
- Smertin, O.S.**
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- Smiley, B.D.**
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Arctic data compilation and appraisal. Vol.9. Beaufort Sea: biological oceanography—bacteria, plankton, epontic community 1914 to 1985 [1987, 394p., eng] 44-1459
Arctic industrial activities compilation. Vol.1: Beaufort Sea: marine dredging activities 1959 to 1982 [1985, 192p., eng] 44-1506
Arctic industrial activities compilation. Vol.2: Sverdrup Basin: hydrocarbon exploration 1974-1984 [1985, 181p., eng] 44-1507
- Smiragila, C.**
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- Smirnov, A.M.**
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Arctic Ocean sea ice massifs [1990, p.147-149, eng] 44-4081
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Ice conditions for navigation in the Pacific Ocean ice massif in winter [1989, p.56-64, rus] 44-2823
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- Smirnov, V.M.**
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- Smirnov, V.N.**
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- Smirnova, M.E.**
Thermal effect of power plants on an aqueous medium [1989, 251p., rus] 44-2802
- Smitt, H.**
Lower Rhine: geomorphological changes [1989, p.167-182, eng] 44-1251
- Smith, A.L.**
Polar Research Board: Antarctic-related activities, July 1987 through June 1988 [1988, p.216-217, eng] 44-2140
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Investigation into the forces required to tow cables and sledges over antarctic snow [1989, p.77-82, eng] 44-830
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Arctic sea ice: climatological distribution and methods of analysis [1987, p.95-100, eng] 44-600
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Detailed test plan, production prove-out test (PPT) of the standard integrated command post system (SICPS), shelter command post (SCP) [1989, 18p. + append., eng] 44-1845
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- Smith, D.W.**
Cold regions environmental engineering: tomorrow's challenges [1989, p.134-142, eng] 44-1790
- Smith, E.A.**
Influence of ice microphysics on microwave radiation transfer through an evolving rain cloud [1989, p.627-630, eng] 44-4045
Radiative transfer to space through a precipitating cloud at multiple microwave frequencies. Part III: Influence of large ice particles [1989, p.739-755, eng] 44-3306
Simulation of microwave brightness temperatures of an evolving hailstorm at SSM/I frequencies [1990, p.2-13, eng] 44-2758
- Smith, G.I.**
Quaternary geology of the Great Basin [1989, 78p., eng] 44-3226
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Class A prediction of arctic caisson performance - discussion and reply [1990, p.299-302, eng] 44-4281
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Effect of weather variability on the energy balance of a lake in the Hudson Bay lowlands, Canada [1990, p.98-107, eng] 44-2665
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Effect of backfill properties and surface treatment on the capacity of adfreeze pipe piles [1989, p.718-725, eng] 44-2645
Pangnirtung water reservoir: geotechnical aspects [1989, p.335-347, eng] 44-311
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Why is helicopter icing protection getting a cold reception [1983, p.30-34, 76, eng] 44-394
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Potential responses of permafrost to climatic change [1990, p.29-37, eng] 44-3388
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Frozen earth: fundamentals of geocryology [1989, 306p., eng] 44-1355
Observations and significance of internal pressures in freezing soil [1990, p.75-81, eng] 44-3646
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Analysis of sea ice drift in a coastal zone [1990, p.168-172, eng] 44-3843
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Review of the oceanography and micrometeorology of arctic leads and polynyas [1990, p.123-126, eng] 44-3834
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Ice lens orientation around a chilled buried pipe [1990, p.83-87, eng] 44-3647
Ice sandwich experiments and the thermodynamic-rheological model of frost heave [1989, p.579-580, eng] 44-943
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Atmospheric barometer measures arctic sea surface height [1990, p.43-46, eng] 44-4146
Significant metalliferous lode deposits and placer districts of Alaska [1987, 104p. + append., eng] 44-533
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Fracture toughness of porous ice with and without particles [1990, p.241-246, eng] 44-2230
On the creep properties of field-retrieved sprayed ice [1988, p.539-550, eng] 44-1171
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Note on the improvement of TIROS operational vertical sounder temperature retrievals above the antarctic snow and ice fields [1990, p.11, 747-11, 754, eng] 44-4258
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AMERIEZ 1986: nutrient and phytoplankton biomass distributions in the ice-edge zone of the northwestern Weddell Sea [1989, p.182-183, eng] 44-27

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- Numerical model of mesoscale physical-biological interactions in the Fram Strait marginal ice zone [1989, p.161-16, 175, eng] **44-1108**
- Polar oceanography. Part A: physical science [1990, 406p., eng] **44-3974**
- Satellite ocean color studies of antarctic ice edges in summer and autumn [1990, p.9481-9496, eng] **44-4328**
- Smithline, S.J.
Density-functional theory for the freezing of water [1987, p.1698-1701, eng] **44-2115**
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Tillage and crop residue effects on soil frost depth [1990, p.31-35, eng] **44-2963**
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Evaluating the effect of weather modification on cumulonimbus clouds for artificial increase of precipitation [1989, p.71-101, rus] **44-4233**
- Smorygin, G.I.
Experiments in the application of granular ice in erecting structures of complex forms [1989, p.118-127, rus] **44-2162**
- Gas-kinetic processes during ice formation [1989, p.63-71, rus] **44-2154**
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Oil recovery systems in ice [1984, p.26-35, eng] **44-2431**
- Smy, P.
Low temperature starting of diesel engines using timed spark discharge [1985, 10p., eng] **44-1794**
- Snegirev, A.M.
Electromagnetic methods of studying permafrost: a review [1988, 46p., rus] **44-1493**
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Double torsion test applied to fine grained and freshwater columnar ice and sea ice [1988, 12p., eng] **44-3950**
- Snetsinger, K.G.
Antarctic stratospheric ice crystals [1989, p.16, 449-16, 457, eng] **44-1624**
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Optimization of hull form for future arctic tankers. phase I. Summary report [1989, 12p., eng] **44-4266**
- Snider, J.B.
Remote sensing method of measuring atmospheric vapor fluxes: application to winter mountain storms [1990, p.22-34, eng] **44-3289**
- Snider, J.R.
Rime ice composition at the Elk Mountain Observatory: atmospheric processes, acid and nutrient deposition rates [1987, p.23-38, eng] **44-77**
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Cold resistance of an austenite-martensite seam in a welded joint of 14Kh2N4MDA high-strength steel [1988, 3p., eng] **44-1236**
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Snow and avalanches in the Swiss Alps, winter 1987-88 [1989, 156p., ger] **44-2112**
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Snow survey of Great Britain 1988-89 [1989, 21p., eng] **44-1224**
- Snow-winging tips
Snow winging tips [1921, p.44, eng] **44-3369**
- Snowfighters given new options in deicers
Snowfighters given new options in deicers [1989, p.53, eng] **44-769**
- Snowmobiles and motorized sleds: powered vehicles for use on ice and snow. January 1970-October 1988 (Citations from the U.S. Patent database)
Snowmobiles and motorized sleds, powered vehicles for use on ice and snow. January 1970-October 1988 (Citations from the U.S. Patent database) [1988, 116p., eng] **44-794**
- Snyder-Conn, E.
Effects of Prudhoe Bay reserve pit fluids on water quality and macroinvertebrates of arctic tundra ponds in Alaska [1987, 49p., eng] **44-2943**
- Snyder, E.F.
Activities of the Alaska District Water Resources Division, U.S. Geological Survey, 1990 [1990, 21p., eng] **44-3806**
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Thermal regime of moorings in a Yakut river port [1989, p.68-71, rus] **44-373**
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Applying explosion processes to structural steels for increasing resistance to brittle failure [1990, p.264-269, rus] **44-4396**
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Ground thermal conductivity effect on the thermal regime of a pipeline-duct ground-atmosphere system [1989, p.104-106, rus] **44-372**
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Determination of frosts in orange groves from NOAA-AVHRR data [1989, p.135-146, eng] **44-1945**
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Random choice method for the Stefan problem [1990, p.1-9, eng] **44-3785**
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Dynamic analysis of a floating ice sheet undergoing vertical indentation [1990, p.195-203, eng] **44-2224**
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- Proceedings. Vol.4 [1990, 339p., eng] **44-2199**
- Vertical lifting and penetration of floating ice sheets with cylindrical indentors [1989, p.104, eng] **44-3141**
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Monitoring of snow cover and surface runoff in Greenland by use of NOAA-AVHRR satellite data [1988, p.179-188, eng] **44-247**
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Durability of external wall coatings in cold region [1988, p.67-74, jpn] **44-2667**
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Diurnal ice storage cooling systems in Army facilities [1989, p.1079-1085, eng] **44-442**
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Development of ice model tests into a reliable tool for ice-breaking ship design [1990, p.C/1-C/11, eng] **44-3467**
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Effects of freezing on aggregate stability of soils differing in texture, mineralogy, and organic matter content [1990, p.61-69, eng] **44-2967**
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Hydrology of rivers in permafrost regions: a new division of land hydrology [1989, p.195-205, rus] **44-3911**
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Clay mineralogy of unglaciated cryohydromorphic soils [1990, p.80-87, eng] **44-4056**
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- Sokolov, V.E.
Arctic research: advances and prospects [1990, 366p., + 445p., eng] **44-4061**
- International cooperation among arctic researchers [1989, p.129-134, rus] **44-684**
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Study of snow accumulation on various topographic forms in the Khibiny Mountains [1989, p.232-240, rus] **44-1594**
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Application of local area network technology in an engineering environment [1990, p.19-23, eng] **44-2202**
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Glaciomarine sedimentation in epicontinental seas exemplified by the northern Barents Sea [1989, p.225-250, eng] **44-3937**
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Comments on the genesis of De Geer moraines [1980, p.45-47, eng] **44-908**
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Diagrams of structural strength of steels with respect to cold brittleness [1990, p.51-56, rus] **44-4349**
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Role of perennially frozen rock in the formation of ground water in the inter-mountain basins of the Altai-Sayan folded region [1989, p.24-27, rus] **44-145**
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Access roads in the eastern part of the Baykal-Amur railroad [1990, p.153-157, rus] **44-4314**
- Solodovnikov, B.I.
Access roads in the eastern part of the Baykal-Amur railroad [1990, p.153-157, rus] **44-4314**
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Intensive concrete technology [1989, 261p., rus] **44-1754**
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Glacial changes in the Tien Shan Mountains as revealed by bioindicators: time-series analysis and interpretation [1989, p.81-87, eng] **44-175**
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Diagnostic for denitrification in the winter polar stratospheres [1990, p.698-702, eng] **44-4033**
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Problems of technical refitting for hydrological observation systems [1989, p.58-73 (Preliminary p.67-68), rus] **44-3909**
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Gas hydrate formation as a special type of oceanic cryolithogenesis [1989, p.115-120, rus] **44-1756**
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Determining the average annual temperature of permafrost [1989, p.102-107, rus] **44-2519**
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Oil recovery systems in ice [1984, p.26-35, eng] **44-2431**
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Darcy permeability of fine-grained compact snow [1989, p.121-128, eng] **44-4005**
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Origin of polygonal peat plateaus under conditions of continuous permafrost, Truelove Lowland, Devon Island, N.W.T. [1990, p.11-16, eng] **44-3637**
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Hot-water drilling on the Siple Coast [1988, p.62-63, eng] **44-1696**
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Passive tracer gas measurement of air exchange in a large multi-celled building in Alaska [1989, p.433-444, eng] **44-1358**
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Electric vehicle design considerations for cold weather operations [1989, 4p., eng] **44-2852**
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Ice Island sampling and investigation of sediments—Field report 1988 [1988, 42p., eng] **44-2770**
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AMERIEZ 1986: photoadaptation of phytoplankton and light limitation of primary production in the ice-edge zone of the Weddell Sea [1989, p.185-187, eng] **44-28**
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Raman spectroscopic study of bulk water supercooled to -33 C [1990, p.25-33, eng] **44-3966**
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Building structures on swelling clayey soils [1989, 309p., rus] **44-2404**
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External water exchange in lakes of the USSR [1988, 144p., rus] **44-1500**
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Correlation of results of plate and compression tests on frozen soils under thawing [1990, p.160-161, eng] **44-3257**
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Water balance of the Tekes River basin [1989, p.151-167, rus] **44-1396**
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Isotopic composition of ice formed by water freezing [1989, 52p., eng] **44-1350**
- Isotopic method of estimating conductive heat flux through antarctic first-year sea ice [1990, p.270-272, eng] **44-4208**
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Nonlinear dynamic analysis of caisson-type offshore structures [1990, n.p., eng] **44-1520**
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Recording of interannual climatic change by high-resolution natural systems: tree-rings, coral bands, glacial ice layers, and marine varves [1989, p.1-14, eng] **44-2941**
- Sovetskaya antarkticheskaia ekspeditsiya
Twenty-sixth Soviet Antarctic Expedition. Winter studies 1981 and 1982 [1989, 144p., rus] **44-3070**
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Anisotropy of properties and structure of some alpha-alloys of titanium and zirconium in the 77-300 K temperature range [1990, p.47-50, rus] **44-4348**
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Dominion Range ice core, Queen Maud Mountains, Antarctica—general site and core characteristics with implications [1990, p.11-16, eng] **44-3716**
- Sparrow, E.M.
Analysis of melting in the presence of natural convection in the melt region [1977, p.520-526, eng] **44-3749**
- Speers-Hayes, P.
Avalanche weather forecasting at the Northwest Avalanche Center, Seattle, Washington, U.S.A. [1990, p.57-66, eng] **44-3722**
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By the numbers on snow or ice [1988, p.18-20, eng] **44-758**
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Physical modelling of a first year ridge ramming event [1990, p.A 1-A 24, eng] **44-3465**
- Ridge modelling. Model scale simulation of ridge ramming event with the USC G Polar Star [1989, p.121-126, eng] **44-3019**
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Dominion Range ice core, Queen Maud Mountains, Antarctica—general site and core characteristics with implications [1990, p.11-16, eng] **44-3716**
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1400-year oxygen isotope history from the Ross Sea area, Antarctica [1990, p.94-98, eng] **44-4169**
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- Ice-core records and ozone depletion—potential for a proxy ozone record (1988, p.64-68, eng) 44-1698
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- On the creep properties of field-retrieved sprayed ice (1988, p.539-550, eng) 44-1171
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Melting behavior of fluid inclusions in laboratory-grown halite crystals in the systems NaCl-H₂O, NaCl-KCl-H₂O, NaCl-MgCl₂-H₂O, and NaCl-CaCl₂-H₂O (1990, p.591-601, eng) 44-3364
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Optimal control for cool storage (1989, p.1189-1193, eng) 44-444
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Sea ice: a habitat for the foraminifer *Neogloboquadrina pachyderma*? (1990, p.86-92, eng) 44-3824
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Optical and microphysical properties of a cold cirrus cloud: evidence for regions of small ice particles (1989, p.11,151-11,164, eng) 44-2753
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Barents Sea ice SAR survey (1990, p.301-307, eng) 44-2239
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Automatic monitoring of short duration snowmelt events in a Nova Scotia headwater stream (1989, p.145-153, eng) 44-2434
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Chand SAR observations of marginal ice zone rheology in the Labrador Sea (1989, p.522-534, eng) 44-406
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Graphitic carbon in snow (1989, p.151-160, eng) 44-1949
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Experimental evaluation of the tensile strength of impact ice (1989, p.1205-1208, eng) 44-1512
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Bering Sea winter ice edge data collection aboard USCGC *Polar Sea*, Vol.1: Environmental data: Final report Apr-Nov. 86 (1987, 275p., eng) 44-881
- Bering Sea winter ice edge data collection aboard USCGC *Polar Sea*, Vol.2: Hull ice impact loads: Final report Apr-Nov. 86 (1987, 160p., eng) 44-882
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- Environmental data collection aboard USCGC *Polar Sea*, Vol.1: environmental data: Final report June 85-Nov. 86 (1987, 121p., eng) 44-887
- Nasarin Basin and ice edge data collection aboard USCGC *Polar Sea*, Vol.1: Environmental data, March-April 1985 (1986, 487p., eng) 44-1075
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Late Wisconsinan deglaciation of the area south of Dolphin and Union Strait, northern District of Mackenzie (1990, p.55-66, eng) 44-4492
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Circulation and property distributions in the central Bering Sea spring (1989, 198p., eng) 44-2351
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High-pressure freezing for the preservation of biological structure: theory and practice (1989, p.165-174, eng) 44-2789
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Development of aligned columnar sea ice: a field investigation (1989, p.217-223, eng) 44-1549
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Use of weathered rock for engineered fill in permafrost regions of Alaska (1990, p.379-388, eng) 44-3685
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"Folk glaciology" in Central Asia (1989, p.35-43, rus) 44-333
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Geochemical characteristics of Hoglandvatnet and Alandvatnet, central Spitsbergen (1989, p.429-442, eng) 44-3061
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Role of seawater freezing in the formation of subsurface brines (1990, p.13-21, eng) 44-1769
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Effect of Danube dams on ice regime (1989, p.222-232, eng) 44-2038
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- Expected effects on the hydrography and brackish layer currents caused by hydroelectric discharges to a Norwegian fjord system (1988, p.137-145, eng) 44-3320
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Oxygen demand in ice covered lakes as it pertains to winter aeration (1989, p.1169-1176, eng) 44-3113
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Oceanographical variations in the Iceland Sea and their impact on biological conditions: a brief review (1989, p.427-455, eng) 44-3431
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DMSP-SSM/1 (Defense Meteorological Satellite Program-Special Sensor Microwave Imager) NASA algorithm validation using primarily LANDSAT and secondarily DMSP and/or AVHRR visible and thermal infrared satellite imagery: Annual progress report (1988, 108p., eng) 44-709
- Multisensor approach to sea ice classification for the validation of DMSP-SSM/1 passive microwave derived sea ice products (1990, p.75-82, eng) 44-3398
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Temperature and salinity staircases in the northwestern Weddell Sea (1990, p.295-306, eng) 44-2792
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Application of snow cover energy and mass balance model in a balsam fir forest (1990, p.1079-1092, eng) 44-4130
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Acoustic reflections from cylindrical blocks of arctic ice, 1986 (1988, 108p., eng) 44-839
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- Thermal conductivity of moist saline soils and ground (1988, p.91-103, rus) 44-1967
- Stepanov, G.A.**
Determination of low-temperature strengthening of aluminum alloys (1990, p.229-233, rus) 44-4388
- Stepanov, G.M.**
Temperature regime of frozen soils on burns in northern Yakutia (1988, p.76-82, eng) 44-222
- Stepanov, G.V.**
Apparatus and results of a study on the ice-forming capacity of anti-hail devices in a clear atmosphere (1989, p.115-121, rus) 44-875
- Equipment, methodology and some results of a study on the dispersiveness and ice-forming properties of aerosols in growing cumulus clouds (1989, p.35-45, rus) 44-2197
- Methods and some results of studies of the microstructure, ice-forming properties, elemental and chemical composition of giant and super-giant aerosol particles (1989, p.108-115, rus) 44-874
- Rate of ice nucleation by atmospheric ice-forming nuclei (1989, p.5-8, rus) 44-2196
- Stepanova, S.G.**
To protect the environment of the Far North and build safe pipelines (field studies in Yamalo) (1989, p.20-21, rus) 44-383
- Stephens, M.**
Static and cyclic load tests of a composite ice-resisting wall (1989, 59p., eng) 44-1597
- Stephenson, S.N.**
Ice stream evolution revealed by satellite imagery (1990, p.273-277, eng) 44-4209
- Landsat Thematic Mapper imagery of the Sverdrup Corridor, Antarctica (1988, p.214-215, eng) 44-2139
- Steppuhn, H.**
Snow management increases alfalfa yields (1989, p.134-137, eng) 44-515
- Stern, F.**
Chaotic dynamics in continuous mode icebreaking (1989, p.139-146, eng) 44-3022

- Stetsko, P.I.**
Pre-development distribution patterns of cesium-137, uranium and companion elements in lichen heath near Baker Lake N.W.T. (1989, 42p., eng) 44-2114
- Stevens, G.S.**
Construction and performance of the Kadluk 0-07 sprayed ice pad (1988, p.551-564, eng) 44-1172
- Stevenson, D.J.**
Polar wander of an ice shell on Europa (1989, p.242-270, eng) 44-1952
Thermal state of an ice shell on Europa (1989, p.220-241, eng) 44-1951
- Still, P.J.**
Alaska index: streamflow, lake levels, and water-quality records to September 30, 1988 (1989, 189p., eng) 44-3737
- Stimming, U.**
Proton mobility in liquid and frozen HClO₄-5.5H₂O: NMR and conductivity measurements (1988, p.6874-6876, eng) 44-3618
- Stockton, W.L.**
Biogenic sedimentation in McMurdo Sound, Antarctica (1989, p.155-179, eng) 44-3935
- Stogova, V.A.**
Physical properties of carbonate rocks in Western Yakutia based on results of measurements of a naturally-frozen drill core (1989, p.121-128, rus) 44-2053
- Stoker, C.R.**
Early environment and its evolution on Mars: implications for life (1989, p.189-214, eng) 44-1768
- Stokke, O.S.**
Threats to the Arctic environment (1989, p.21-27, eng) 44-1767
- Stoliarov, N.**
For use in the Arctic: Developments in ice stations of the US and other NATO countries (1989, p.72-73, rus) 44-2627
- Story, J.F.**
Decline of the icebreaker fleet (1989, p.86, eng) 44-3013
Only two polar icebreakers left (1989, p.84-88, eng) 44-3012
- Stossel, A.**
Coupled sea ice-mixed layer simulations for the southern ocean (1990, p.9539-9553, eng) 44-4332
- Stotland, D.M.**
Experimental study of the temperature dependence of the effective heat capacity of peat (1987, p.111-115, eng) 44-3259
Thermal meliorative countermeasures in the drying of cut peat in a frozen deposit (1989, p.19-24, rus) 44-1401
Water vapor transfer during freezing of peat moisture (1989, p.19-25, rus) 44-1303
- Stott, D.**
Durability of concrete containing chloride-based accelerating admixtures (1990, p.102-112, eng) 44-3002
- Stottlemeyer, R.**
Multiyear trends in snowpack ion accumulation and loss, northern Michigan (1990, p.721-737, eng) 44-3349
- Stow, D.**
Mapping arctic tundra vegetation types using digital SPOT HRV-XS data: a preliminary assessment (1989, p.1451-1457, eng) 44-772
- Stowe, R.L.**
Condition survey of lock number 7, Monongahela River. Final report (1987, 154p., eng) 44-1235
- Strahan, S.E.**
Diagnostic for denitrification in the winter polar stratospheres (1990, p.698-702, eng) 44-4033
- Strain, J.**
Velocity effects in unstable solidification (1990, p.1-15, eng) 44-3165
- Straka, J.M.**
Hail growth in a highly-glaciated central high plains multicellular hailstorm (1990, 425p., eng) 44-3271
- Straughan, B.**
Error estimates for the temperature of a piece of cold ice, given data on only part of the boundary (1990, p.443-452, eng) 44-3276
- Strayer, L.W.**
Summer multiyear ice properties in the Beaufort Sea (October 1982) (1982, 116p., eng) 44-1403
- Strem, R.B.**
Beaufort Sea data collection: multiyear ice research aboard USCGC Polar Sea, November 11-December 4, 1984 (1985, 235p., eng) 44-1282
- Streten, N.A.**
Review of the climate of Mawson: a representative strong wind site in East Antarctica (1990, p.70-89, eng) 44-2158
- Strigotskii, S.V.**
Studying the effect of chemical reagents and pliability of container walls on the stress of the phase equilibrium of freezing solutions (1989, p.29-45, rus) 44-2148
- Stringer, W.J.**
Effects of the West Dock Causeway on nearshore oceanographic processes in the vicinity of Prudhoe Bay, Alaska (1989, 50p., eng) 44-3772
Remote sensing, data acquisition, analysis, and archival. Final report (1988, 61p., eng) 44-989
- Statistical description of the summertime ice edge in the Chukchi Sea. Final report, Task 2 (1987, 208p., eng) 44-1439
- Strizhalo, V.A.**
Effect of subzero treatment on the deformation of construction alloys and selection of safe stresses (1990, p.3-9, rus) 44-4339
Limiting state of metals at cryogenic temperatures under impulse magnetic exposure (1990, p.233-237, rus) 44-4389
Strength of materials and structures at low temperatures. Collection of scientific works (1990, 273p., rus) 44-4338
- Strobl, D.**
Potential of SAR in a snow and glacier monitoring system (1986, p.25-35, eng) 44-1238
- Stroeven, A.**
Three year record of seasonal variations in surface velocity, Storgläären, Sweden (1989, p.235-247, eng) 44-1551
- Strömberg, J.O.**
Northern Svalbard waters (1989, p.402-426, eng) 44-3430
- Struchkov, A.S.**
Experimental investigation of the strength and deformability of wound fiberglasses and organoplastics under low climatic temperatures (1989, p.49-53, eng) 44-1882
- Struzik, E.**
Arctic oases (1989, p.38-49, eng) 44-2067
- Stuart, W.J.H.**
Canadian arctic marine transportation: present status and future requirements (1988, p.130-152, eng) 44-1122
- Stubb, J.T.**
Eleven months in the installation of an arctic mobile drilling structure (1984, p.A/1-A/19, eng) 44-3450
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Construction of fully instrumented test pavements in North Carolina (1989, p.394-401, eng) 44-1675
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Late Wisconsin advance and retreat pattern in the Miami sublobe, Laurentide ice sheet (1990, p.172-175, eng) 44-4187
- Study on road construction for the 21st century in snow and cold regions**
Study on road construction for the 21st century in snow and cold regions (1989, p.5-34, jpn) 44-3562
- Stuiver, M.**
1400-year oxygen isotope history from the Ross Sea area, Antarctica (1990, p.94-98, eng) 44-4169
Isotopic oxygen-18 results from blue-ice areas (1988, p.70, eng) 44-1700
- Stupich, T.F.**
Improving low temperature startability of M113 vehicles: hot air heating tests (1988, 226p., eng) 44-711
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Automated collection of water-quality and discharge data on streams (1989, p.122-125, eng) 44-512
Evaporation and seepage from a livestock reservoir equipped with a snow fence for water recharge (1989, p.9-20, eng) 44-499
Response of mountain big sagebrush to induced snow accumulation (1989, p.1035-1041, eng) 44-3169
- Sturges, W.T.**
Stable lead isotope ratios in arctic aerosols: evidence for the origin of arctic air pollution (1989, p.2513-2519, eng) 44-2265
- Sturm, M.**
Jokulhlaups from Strandline Lake, Alaska, with special attention to the 1982 event (1989, 19p., eng) 44-395
Unusual jokulhlaup involving potholes on Black Rapids Glacier, Alaska Range, Alaska, U.S.A. (1990, p.125-126, eng) 44-3731
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Influence of ground water monitoring well casings on metals and organic compounds in well water (1989, 9p., eng) 44-3761
- Successful ice test-run for the new Swedish icebreaker Oden**
Successful ice test-run for the new Swedish icebreaker Oden (1989, p.705-706, eng) 44-135
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Seasonal snowfall totals in northern New England: recent trends and variability (1988, p.14-25, eng) 44-4275
Aurora-related studies in Finland 1988 (1990, p.47-52, eng) 44-4066
- Sudakov, P.A.**
Inter-annual cycle of atmospheric precipitation in the high altitude region of Zailiysky Alatau during a multi-year period (1989, p.209-215, rus) 44-1393
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Correlation of glacial deposits within the European USSR using lithological data (1989, p.179-185, rus) 44-1921
Correlation of the glacial complex in the central Russian plain based on integrated analysis (1989, p.185-191, rus) 44-1922
- Sudo, I.**
Snow wetting experiments on hot metallic plate (1985, p.52-55, jpn) 44-2340
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Temperature measurements of first-year sea ice in the sea of Okhotsk using an airborne infrared radiometer (1989, p.111-116, eng) 44-1808
- Suenaga, E.L.**
Testing methods for adfreeze bond strength between ice and various materials (1988, p.306-313, jpn) 44-2698
Total ice force on a cluster of cylindrical piles (1985, p.156-161, jpn) 44-2308
Total ice force on tower structure due to ice jamming (1985, p.168-171, jpn) 44-2310
- Suga, H.**
Dielectric study on pure and KOH-doped tetrahydrofuran clathrate hydrates (1990, p.33-44, eng) 44-2773
Heat capacity and glass transition of ethylene oxide clathrate hydrate (1990, p.45-58, eng) 44-2774
- Sugawara, E.**
Local road heating for the slope intersection (1989, p.189-194, jpn) 44-2878
- Sugawara, H.**
Meteorological observations at Syowa Station in 1987 by the 28th Japanese Antarctic Research Expedition (1990, p.15-45, jpn) 44-3740
- Sugawara, M.**
Melting behavior of snow layers by an aqueous solution with a low solidification temperature (1986, p.161-165, jpn) 44-1345
- Sugawara, N.**
Development of sensor detected road surface conditions (1988, p.164-169, jpn) 44-2678
View of power control for road heating system (1988, p.366-371, jpn) 44-2705
- Sugaya, J.**
On the characteristics of snowfall at Aomori City (1989, p.253-264, jpn) 44-2354
- Sugden, D.**
Climate and the initiation of maritime ice sheets (1990, p.232-237, eng) 44-4200
- Sugihara, S.**
Heat pipe road heating system by using a hot spring waste water (1988, p.387-392, jpn) 44-2708
Local road heating for the slope intersection (1989, p.189-194, jpn) 44-2878
Snow melting system for the roof using heat pipes (1986, p.585-590, jpn) 44-2503
- Sugimoto, H.**
On the optimum design of the snow-shelters (1985, p.251-256, jpn) 44-2324
- Sugioka, H.**
Countermeasures against frost heave on national highways (1989, p.63-68, jpn) 44-3565
On-site studies to select methods of pavement repair (1989, p.57-62, jpn) 44-3564
- Sugiyama, M.**
Conditions of runways in winter at airports in Hokkaido (1989, p.205-210, jpn) 44-1632
- Sugiyama, T.**
Impact strength of concrete at low temperature (1986, p.531-535, jpn) 44-2495
- Sui, J.X.**
Compressive properties of sea ice in a harbour in Liaodong Gulf (1990, p.259-263, eng) 44-2233
- Sukhinski, A.N.**
Errors in measuring the winter precipitation layer by data from the precipitation gage network (1989, p.25-31, rus) 44-4227
- Sukhorukova, S.S.**
Paleogeographic regionalization of the glacial zone of Western Siberia in relation to correlation questions (1989, p.211-216, rus) 44-1924
- Sukhwai, R.N.**
Crystal ice slurries for district cooling systems (1987, p.444-448, eng) 44-17
- Suleimanov, V.A.**
Effect of salinity of frozen soils on thermal regime of bases of underground pipelines (1990, p.156-159, eng) 44-3256
- Sullivan, C.W.**
AMERIEZ 1986: a summary of activities on board the R/V Melville and USCGC Glacier (1989, p.167-169, eng) 44-20
AMERIEZ 1986: microbial growth and metabolism in sea ice and the water column of the marginal ice zone (1989, p.188-190, eng) 44-29
AMERIEZ 1986: photoadaptation of phytoplankton and light limitation of primary production in the ice-edge zone of the Weddell Sea (1989, p.185-187, eng) 44-28
Comparison of neutral lipid content among sea-ice microbial communities in McMurdo Sound, Antarctica (1989, p.191-193, eng) 44-30
Dynamics of ammonium oxidizer activity and nitrous oxide (N₂O) within and beneath antarctic sea ice (1990, p.7-46, eng) 44-3893
Effect of temperature on inorganic nitrogen and carbon metabolism in sea-ice microalgae (1989, p.196-198, eng) 44-31
Estimation of neutral lipid levels in antarctic sea ice microalgae by Nile red fluorescence (1990, p.149-155, eng) 44-3791

- Satellite ocean color studies of antarctic ice edges in summer and autumn (1990, p.9481-9496, eng) 44-4328
- Sullivan, J.M., Jr.
Comparison of numerical simulations with experimental data for a prototype artificial ground freezing (1990, p.36-44, eng) 44-2964
Finite element simulation of planar instabilities during solidification of an undercooled melt (1987, p.81-111, eng) 44-2280
- Sunaga, M.
AC withstand voltage characteristics of snow covered insulator strings (1988, 49p., jpn) 44-1504
- Sunder, S.S.
Crack nucleation in polycrystalline ice—a comparison of two nucleation criteria (1990, p.273-282, eng) 44-2235
- Sunder, W.S.
Mechanics of damage in rate-sensitive construction materials. Technical report Jan.-Dec. 87 (1987, 120p., eng) 44-719
- Suprenant, B.A.
Check your admixtures after winter storage (1989, p.320-322, eng) 44-85
Effects of cold embedments on the temperature of fresh concrete (1985, p.308-318, eng) 44-1993
- Surikov, V.V.
Evaluating pre-winter soil preparation for reclamation construction (1987, p.24-27, rus) 44-2615
Operating reclamation machinery in cold conditions. Handbook (1989, 239p., rus) 44-51
- Sutherland, L.L.
MIZEX (Marginal Ice Zone Experiment) 1987 SAR (synthetic aperture radar) data summary: informal information report (1988, 137p., eng) 44-701
Surface expressions of eddies within the ice pack (1990, p.3-4, eng) 44-3351
- Suto, H.
On an improved equation for estimating the daily snowmelt water from snowpack (1990, p.13-23, jpn) 44-3402
- Suttles, J.T.
Longwave radiation budget at the surface from satellite data: development and validation (1989, p.291-294, eng) 44-4043
- Suzuki, A.
Mechanical properties of A286 alloy at cryogenic temperatures (1988, p.85-88, jpn) 44-1312
- Suzuki, H.
Reclaiming space for urban amenities in winter: streets with snow removal gutters (1988, p.610-614, jpn) 44-2734
- Suzuki, K.
Chemical dynamics of snowmelt runoff (1986, p.336-339, jpn) 44-2477
Chemical studies of snow in Japan (1989, p.14-26, eng) 44-3995
Detection of clouds in Antarctica from infrared multispectral data of AVHRR (1987, p.949-962, eng) 44-1304
Durability of coated steel in sea ice regions (1989, p.213-220, eng) 44-1116
- Suzuki, M.
Automated measuring system designed for determining the snow stratigraphy (1985, p.401-406, jpn) 44-2335
Deicing measures of road surface in expressways (1986, p.451-456, jpn) 44-2486
Property testing and efficient spreading method for deicing chemicals (1987, p.141-151, jpn) 44-1310
Radar image processing of snow stratigraphy (1987, p.173-178, jpn) 44-2536
Radar image processing of the internal structure of snowpack (1988, p.313-320, jpn) 44-1298
Some applications of microwave remote sensing techniques for snow survey (1985, p.394-397, jpn) 44-2334
Study of the calculation of terminal velocity of falling snowflakes (1988, p.27-32, jpn) 44-1308
- Suzuki, S.
Acoustical imaging under the fallen snow (1988, p.152-156, jpn) 44-2676
Snow fall measurement system developing at GIDLH (1988, p.157-163, jpn) 44-2677
- Suzuki, T.
Deformation of concrete u-trough caused by ground freezing (1986, p.471-476, jpn) 44-2487
Frost damage to roads in Hokkaido with special reference to slope, tunnel and gutter (1989, p.65-70, jpn) 44-3442
Monitoring of runoff in rivers at local high water (1989, p.35-38, jpn) 44-3630
- Suzuki, Y.
Creep experiment of polycrystalline ice under hydrostatic pressure (1988, p.1-13, jpn) 44-727
Local road heating for the slope intersection (1989, p.189-194, jpn) 44-2878
Test for characteristics of ice and snow tire and indoor test machine (1988, p.233-238, jpn) 44-2690
- Svard, K.
Swedish Polar Bibliography, 1945-1986 87 (1988, 270p., eng) 44-782
- Svensen, J.I.
Desapadation rates in the Arctic: estimated from lake sediments on Spitsbergen, Svalbard (1989, p.153-168, eng) 44-2387
Last interglacial glacial cycle on Svalbard, as seen from the Kapp Ekholer section (1990, p.63-66, eng) 44-4108
- Svensson, H.
Arctic wind abrasion on boulders (1988, p.119-131, swe) 44-93
Ice-wedge casts in an early deglaciated area of southern Sweden (1987, p.12-18, eng) 44-2583
Periglacial form group of southwestern Denmark (1984, p.25-34, eng) 44-2640
Rock glacier, a "new" feature in Scandinavian geomorphology (1989, p.95-97, eng) 44-1110
- Svensson, U.
Mathematical model of the ocean boundary layer under drifting melting ice (1990, p.161-171, eng) 44-2791
- Svetenko, A.F.
Interaction between shallow foundations in tamped (punched) trenches and heaving soil (1990, p.152-156, eng) 44-3255
- Sveum, P.
Accidentally spilled gas-oil in a shoreline sediment on Spitsbergen: natural fate and enhancement of biodegradation (1987, 21p., eng) 44-1073
Alternative strategies for oil spill combat in arctic waters (1990, p.237-250, eng) 44-4096
Fate and effects of dispersed and non-dispersed oil in arctic mud flats (1987, 24p., eng) 44-1074
Oil spill combat in the arctic: an alternative approach (1987, 27p., eng) 44-1072
- Switek, T.
Winter frost at Viking Lander 2 site (1990, p.1495-1510, eng) 44-2295
- Svoboda, J.
Vascular plant communities of a polar oasis at Alexandra Fjord (70N) Ellesmere Island, Canada (1989, p.1126-1136, eng) 44-1026
- Swamidass, A.S.J.
Crack propagation in stiffened plates with welded joints using a fracture mechanics approach (1988, p.527-537, eng) 44-1170
Nonlinear response of undrained soil under unsymmetric loading (1990, p.67-74, eng) 44-2208
Response of semi-submersibles in ice environment (1985, p.33-46, eng) 44-1300
- Swanson, L.E.
Substrate freeze-thaw in a drained Alberta fen (1989, p.1024-1029, eng) 44-1268
- Swearengen, J.C.
Analysis of dynamic penetration of Arctic Sea ice using energy partitioning (1989, p.254-257, eng) 44-1199
- Sweeney, S.
Determination of the ultimate loads for corrugated-steel, barrel-type shell structures. Final report (1987, 52p., eng) 44-1408
- Swift, C.T.
NASA sea ice and snow validation plan for the defense meteorological satellite program special sensor microwave imager (1987, 81p., eng) 44-1218
Passive microwave remote sensing of sea ice thickness (1989, p.461-462, eng) 44-3163
Remote sensing of ocean surface winds with the special sensor microwave imager (SSM/I) (1990, p.209-213, eng) 44-3852
- Swift, R.N.
Airborne discrimination between ice and water: application to the laser measurement of chlorophyll-in-water in a marginal ice zone (1989, p.67-76, eng) 44-3904
Concurrent remote sensing of arctic sea ice from submarine and aircraft (1989, 20p., eng) 44-3376
Recent measurements of sea ice topography in the eastern Arctic (1990, p.132-136, eng) 44-3836
- Swigart, R.
Economic approach to receiving coal by rail in the sub-arctic environment (1986, p.45-56, eng) 44-2188
- Switch to multi-vis
Switch to multi-vis (1988, p.70-71, eng) 44-753
- Swithbank, C.
Airfields on antarctic glacier ice (1989, 97p., eng) 44-3383
- Sykes, J.F.
Sensitivity and uncertainty analysis of a short-term sea ice motion model (1990, p.1714-1739, eng) 44-2359
Uncertainty of summer ice drift forecasts (1988, p.287-295, eng) 44-1146
- Symons, M.C.R.
Liquid water—the story unfolds (1989, p.491-494, eng) 44-3697
- Symposium on Ice and Climate, Seattle, WA, Aug. 21-25, 1989
Proceedings (1990, 377p., eng) 44-4148
- Symposium on Snow and Glacier Research relating to Human Living Conditions, Lom, Norway, Sep. 4-9, 1988
Proceedings (1989, 303p., eng) 44-536
- Symposium on State of the Art of Pavement Response Monitoring Systems for Roads and Airfields, 1st, Hannover, NH, Mar. 6-9, 1989
State of the art of pavement response monitoring systems for roads and airfields (1989, 401p., eng) 44-1636
- Symposium: Transport of Glacial Drift in Finland, Lammi, Finland, Apr. 12-13, 1988
Proceedings of the Symposium: Transport of Glacial Drift in Finland (1989, 74p., eng) 44-4500
- Synthetic aperture radar: remote sensing. January 1976-September 1989 (Citations from the INSPEC Information Services for the Physics and Engineering Communities database)
Synthetic aperture radar: remote sensing. January 1976-September 1989 (Citations from the INSPEC Information Services for the Physics and Engineering Communities database) (1989, 194p., eng) 44-783
- Syrovatko, N.M.
Prediction of changes in thickness of seasonal freezing of rocks in unfrozen valley grounds with exploitation of deposits of underground waters (1988, p.70-75, eng) 44-470
- Syskin, S.A.
Dynamic and thermodynamic properties of clathrate hydrates (1990, p.59-69, eng) 44-2775
- Syvitski, J.P.M.
On the deposition of sediment within glacier-influenced fjords: oceanographic controls (1989, p.301-329, eng) 44-3940
- Szczepaniak, S.
Modern method of frozen rock mass control in the Underground Construction Enterprise KGHM in Lubin (1989, p.571-572, eng) 44-940
- Szepessy, G.
Model studies on ice control structures in the Dunakülli reservoir (1989, p.36-45, eng) 44-2021
- Szilder, K.
Some applications of a numerical model of floating sea ice platforms (1990, p.61-66, eng) 44-2207
Some results from a time-dependent thermodynamic model of the construction of floating ice platforms (1988, p.225-233, eng) 44-1419
Time-dependent thermodynamic model of the build-up of sea-ice platforms (1989, p.169-178, eng) 44-1540
- Szttyler, A.
Elemental carbon concentration in air and its influence on attenuation of incoming solar radiation and snow cover albedo in Katowice, southern Poland (1989, p.1193-1196, eng) 44-2786
- Taagholt, J.
Danish arctic science and engineering (1989, p.19-29, eng) 44-1126
- Tabata, M.
Expansion of concrete due to freezing and thawing (1985, p.196-201, jpn) 44-2315
- Tabrizi, A.H.
Surface-blowing anti-icing technique for aircraft surfaces (1989, p.354-359, eng) 44-4
- Tabulevich, V.N.
Physico-geological modeling of the upper profile under permafrost conditions (1989, 128p., rus) 44-2074
- Tachibana, H.
Pollution of snow on the ground (1989, p.313-315, jpn) 44-2895
- Tachibana, Y.
Climatological study on heavy snowfall in Hokkaido, Pt 2 (1988, p.185-189, jpn) 44-2682
Disaster created by snow and ice in Hokkaido (1988, p.179-184, jpn) 44-2681
Effect of the equatorial Pacific Ocean on interannual variability in the Okhotsk Sea ice (1989, p.71-77, jpn) 44-3126
Estimation of the distribution and total amount of water equivalent of snow on the running area of mudflow generated by the volcanic eruption of Mt. Tokachi, Hokkaido on 24 May, 1926 (1989, p.41-49, jpn) 44-3125
- Tackett, R.K.
Case study: office building uses ice storage, heat recovery, and cold air distribution (1989, p.1113-1121, eng) 44-443
- Tada, T.
Behaviors of frost heave on peats in laboratory tests (1988, p.217-224, jpn) 44-1297
- Tadokoro, Y.
Meteorological analysis on glaze occurrence in Japan (1989, p.101-109, jpn) 44-2863
- Tag, P.M.
Ice breeze mechanism for boundary-layer jets (1989, p.177-195, eng) 44-164
- Tagashira, S.
Numerical simulation of pressure on snow globe supporting structures (1988, p.214-219, jpn) 44-2687
- Tagiev, V.G.
Using systems analysis for modeling optimal regimes in operating natural gas production installations (1989, 26p., rus) 44-2102
- Tago, M.
Characteristic of freezing heat transfer on a rectangular bar with a rectangular cross section (1988, p.87-93, eng) 44-689
Freezing heat-transfer characteristics in section bar with a rectangular cross section (1988, p.215-224, eng) 44-1418
Ice accretion characteristics along a vertical cylinder immersed in cold air stream with seawater spray (1988, p.981-988, eng) 44-1377
Thermal conductivity of a bending ice cover (1989, p.269-278, eng) 44-263
- Taguchi, Y.
Method for the estimation of ice loads (1988, p.138-143, jpn) 44-2305

- Taguchi, Y. (cont.)**
On the size effect of local ice pressures [1989, p.370-375, jpn] 44-2901
Study on fracture modes and ice loads of flat ice plates [1987, p.333-338, jpn] 44-2548
- Taharasaki, K.**
Measurement of snowfall intensity by optical snow detector [1989, p.564-568, jpn] 44-2917
Studies on a practical use of pavement freezing detector [1989, p.579-584, jpn] 44-2919
- Talib, A.J.**
Natural icing re-evaluation of the EH-60A Quick Fix helicopter [1989, 65p., eng] 44-2649
- Taisaev, T.T.**
Peculiarities of the thin gold grain size distribution in the cryogenic zone of gold ore bodies and their secondary haloes and dissemination fluxes [1990, p.699-703, rus] 44-3561
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- Takagi, H.**
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High-toughness age-hardenable copper-bearing steel for large-diameter line pipe [1990, p.13-20, eng] 44-2078
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Characteristics of heat balance on snow-accumulated roads [1989, p.195-198, jpn] 44-2879
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Characteristics and classification of volcanic-ash-derived soils in Alaska [1989, p.8-28, eng] 44-2138
Investigative report on observation characteristics of radar rain and snow gauges (Part 2) [1989, p.5-10, jpn] 44-3522
- Takahashi, Y.**
Experimental results of 3D objects using under snow radar [1987, p.168-172, jpn] 44-2535
Thermal conductivity of frozen soils [1981, p.109-112, jpn] 44-3089
- Takaku, M.**
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Snow melting and deicing system using heat pipes [1985, p.314-319, jpn] 44-2329
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Experimental study of uniaxial compressive strength of frozen sand [1980, p.79-88, jpn] 44-3086
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- Takashima, H.**
Improvement of cold-proof performance of inflatable liferaft [1987, p.190-195, jpn] 44-2537
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- Takasu, K.**
AC withstand voltage characteristics of snow covered insulator strings [1988, 49p., jpn] 44-1504
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- Takeda, H.**
Coefficient of friction between concrete and asphalt-mat [1988, p.661-670, eng] 44-1181
Experimental study on the resistance to sliding of breakwaters [1988, p.671-681, eng] 44-1182
Laboratory investigation of wave uplift forces exerted upon caisson-type breakwaters with footing [1988, p.465-475, eng] 44-1164
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- Takegata, S.**
"HIMURO project" constant temperature storage house heated by the respiration heat of agricultural products [1989, p.254-257, jpn] 44-2886
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Studies on the property of pavement temperature distribution (Part 1) [1986, p.67-107, jpn] 44-3175
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- Takekuma, K.**
Arctic tanker bow forms and evaluation of full scale propulsive performance in ice [1984, p.B-1-B-12, eng] 44-3451
Comparative model tests in ice of a Canadian Coast Guard R-class icebreaker [1989, p.1-1-1-18, eng] 44-3984
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- Takemoto, S.**
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Experiments on storing snow in mounds [1988, p.556-561, jpn] 44-2727
- Takeshige, T.**
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- Takeuchi, K.**
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- Takeuchi, M.**
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Effect of snow break forest to improve visibility in blowing snow [1985, p.527-531, jpn] 44-2342
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- Takeuchi, N.**
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Road heating system applied heat pumps recovered waste heat of subway [1989, p.259-264, jpn] 44-2887
- Takeuchi, T.**
Adfreeze bond strength between sea ice and various materials [1985, p.172-177, jpn] 44-2311
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Sea ice-concrete abrasion test [1986, p.564-571, jpn] 44-2500
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- Takeuchi, Y.**
n-alkylphenyldimethylammonium salts as inhibitors of the ice nucleating activity of *Erwinia ananas* [1990, p.549-550, eng] 44-3582
- Takhirov, M.K.**
Intensive concrete technology [1989, 261p., rus] 44-1754
- Takizawa, T.**
Deflections of floating ice sheets subjected to moving vehicles [1985, p.133-137, jpn] 44-2304
- Tamaki, A.**
Fundamental research on supercooling phenomenon on heat transfer surface; investigation of an effect of characteristics of surface and cooling rate on a freezing temperature of supercooled water [1988, p.207-217, jpn] 44-1367
- Tamaki, S.**
Study on snow deposit on a new RC rigid frame viaduct with free snow dumping system [1988, p.354-359, jpn] 44-2703
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High-toughness age-hardenable copper-bearing steel for large-diameter line pipe [1990, p.13-20, eng] 44-2078
- Tampo, T.**
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Snow fall measurement system developing at GIDLH [1988, p.157-163, jpn] 44-2677
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- Tamura, T.**
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Evaluation of the use of high pressured air system for snow removal on skyway [1988, p.640-645, jpn] 44-2737
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Development of snow-circulating-conveyance-gutter systems [1988, p.412-418, jpn] 44-2712
Test results of horizontal loads on suspended fence anchor [1989, p.91-96, jpn] 44-3566
- Tanaka, S.**
Fatigue behavior of steel at low temperature [1986, p.551-556, jpn] 44-2498
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Study on inner thermal activity of concrete under low temperature [1988, p.508-511, jpn] 44-2719
- Tang, C.L.**
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- Tang, P.**
Ice breakup of the Nashua River, New Brunswick [1989, p.142-155, eng] 44-4007
- Tangborn, W.V.**
Effect of area distribution with altitude on glacier mass balance: a comparison of North and South Kilawati glaciers, Washington State, U.S.A. [1990, p.278-282, eng] 44-4210
- Taniguchi, F.**
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- Taniguchi, M.**
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- Taniguchi, S.**
Study on mechanical property of snow fence [1987, p.417-421, jpn] 44-2555
- Taniguchi, T.**
Example of very-short-term prediction experiments of snow-fall in Sapporo City [1985, p.480-485, jpn] 44-2339
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- Tanii, F.**
Experiments on storing snow in mounds [1988, p.556-561, jpn] 44-2727
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- Tanimura, A.**
Seasonal variation of marine environmental conditions under fast ice in Ongul Strait, Antarctica [1985, p.42-43, jpn] 44-59
- Tanré, D.**
On the satellite retrieval of aerosol optical thickness over polar regions [1989, p.707-710, eng] 44-276
- Tantillo, T.**
Prototype testing facilities for field evaluation of contaminant transport in freezing soils [1988, 29p., eng] 44-271
- Tao, W.K.**
Ice-water saturation adjustment [1989, p.231-235, eng] 44-264
- Tapashkhanov, V.O.**
Three-wave automated radar system [1989, p.93-99, rus] 44-815
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Correlating ice crystal types with halo types [1989, p.262-264, eng] 44-660
- Tarabukina, V.G.**
Effect of fires on some hydrophysical properties of soils in the northern taiga [1988, p.86-91, rus] 44-1966
- Taran, B.M.**
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Automatic information system in support of operations at antarctic stations [1989, p.108-115, rus] 44-2830
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- Tarasov, A.F.**
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- Tarnocai, C.**
Norman Wells to Zama oil pipeline permafrost and terrain research and monitoring program: site establishment report [1989, 331p., eng] 44-1496
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Wetlands of arctic Canada [1988, p.27-53, eng] 44-1364
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- Tarzia, D.A.**
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- Tatinclau, J.C.**
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Comparative model tests in ice of a Canadian Coast Guard R-class icebreaker [1990, p.31-52, eng] 44-4421
Effect of normal pressure on kinetic friction coefficient: myth or reality? [1989, p.127-131, eng] 44-3020
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- Tatsuta, M.**
Concept design of hybrid ice trap structure (HITS) [1987, p.299-304, jpn] 44-2542
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- Taumurzaev, A.Kh.**
Physical characteristics of hail and damage to agricultural crops [1989, p.137-145, rus] 44-821
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- Taylor, A.**
Optimization of hull form for future arctic tankers: phase I. Summary report [1989, 12p., eng] 44-4266
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Litter decomposition beneath deep snow in temperate climates [1989, p.223-227, eng] 44-4017
- Taylor, C.H.**
Surface and subsurface water contributions during snowmelt in a small Precambrian Shield watershed, Muskoka, Ontario [1987, p.257-266, eng] 44-1867
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Arctic industrial activities compilation, Vol.1: Beaufort Sea: marine dredging activities 1959 to 1982 [1985, 192p., eng] 44-1506
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Analytical methodology for the measurement of the chemical composition of snow cores from the Cascade/Sierra Nevada mountain ranges [1987, p.55-69, eng] 44-78
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Comparison of four volatile organic compounds in frozen and unfrozen silt [1990, 9p., eng] 44-3991
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Structural study of deeply supercooled water [1989, p.7123-7129, eng] 44-766
Structure of high-density amorphous water. II. Neutron scattering study [1987, p.2231-2235, eng] 44-2116
- Telle-Lamberton, M.A.**
Work scheduling on Canadian Coast Guard ships: physiological and psychological impacts [1989, 17p., eng] 44-2835
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Lake Agassiz and its contribution to flow through the Ottawa-St. Lawrence system [1988, p.281-289, eng] 44-4458
- Tentiukov, M.P.**
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- Teragaki, M.**
Study of titanium lining method for snow gutter [1989, p.295-300, jpn] 44-2893
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- Tereschenko, L.M.**
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Ice data management systems [1989, 154p. + appends., eng] 44-1488
- Tesaker, E.**
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- Tessensohn, F.**
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- Tests on rotary snow removal machinery. Final report**
Tests on rotary snow removal machinery. Final report [1989, p.167-186, jpn] 44-3523
- Tetelbaum, A.S.**
Guide to forecasting the thermal regime of soils in Yakutia [1988, 240p., rus] 44-193
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- Theakstone, W.H.**
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- Theberge, J.B.**
Effect of extreme snowcover on feeding-site selection by woodland caribou [1990, p.161-168, eng] 44-3025
- Thelander, J.A.**
Laminar flow control leading edge glove flight test article development. Final report [1984, 112p., eng] 44-1405
- Thériault, A.**
Study of some factors affecting the adfreeze bond of piles in permafrost [1990, p.327-334, eng] 44-3678
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VLF surface-impedance measurements for ice-depth mapping in the Antarctic [1989, p.197-200, eng] 44-1545
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Radio echo sounding and geothermal investigations in the crater area of Mt. Melbourne, North Victoria Land, Antarctica [1989, p.435-453, eng] 44-3052
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- Thoman, R.A., Jr.**
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- Thomas, D.J.**
Arctic data compilation and appraisal. Vol.16. Queen Elizabeth Islands: chemical oceanography 1952 through 1985 [1986, 125p., eng] 44-1462
Arctic data compilation and appraisal. Vol.2. Beaufort Sea: chemical oceanography [1982, 243p., eng] 44-1437
Arctic data inventory and appraisal. Vol.18. Canada Basin: chemical oceanography 1926 through 1983 [1986, 109p., eng] 44-1474
- Thomas, D.R.**
Arctic Ocean multi-year ice balance, 1979-82 [1990, p.252-255, eng] 44-4204
- Thomas, E.V.**
Use of the distribution of ice thickness to select a cost-effective ice penetrator [1989, p.141-149, eng] 44-3145
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More effective cold, wet-weather patching materials for asphalt pavements. Final report, Aug. 84-Sep. 87 [1988, 152p., eng] 44-1106
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Effect of correlation on signal detection in arctic under-ice noise [1988, 8p., eng] 44-859
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Glacial stage ice-core records from the subtropical Dunde Ice Cap, China [1990, p.288-297, eng] 44-4212
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One-half millennia of tropical climate variability as recorded in the stratigraphy of the Quelavaya ice cap, Peru [1989, p.15-31, eng] 44-2106
Pre-Incan agricultural activity recorded in dust layers in two tropical ice caps [1988, p.763-765, eng] 44-287
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- Thompson, S.I.**
Asynchronous coupling of ice-sheet and atmospheric forcing models [1990, p.247-251, eng] 44-4203
- Thompson, T.**
REPER-88, a sea ice remote sensing experiment in the Gulf of Bothnia [1989, p.149-1507, eng] 44-4445

- Thompson, T. (cont.)**
 BEPERS-88—sea ice remote sensing with synthetic aperture radar in the Baltic Sea [1989, p.698-699, 708-709, eng] 44-3713
 Ground truth measurements for SAR data interpretation at study area III/SMHI [1988, p.85-101, eng] 44-1428
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 Triton: scattering models and surface/atmosphere constraints [1989, p.969-972, eng] 44-366
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 Glaciological research for hydropower planning in Ilulissat/Jakobshavn, West Greenland [1988, p.47-56, eng] 44-235
 Greenland ice-margin programme, a pilot study at Pákitsoq, north-east of Jakobshavn, central West Greenland [1989, p.50-53, eng] 44-4121
 Improved accumulation measurements on Glacier ICG14033 near Nuuk/Godthåb, West Greenland [1989, p.63-66, eng] 44-4125
 Simulation of run-off from the Greenland ice sheet for planning hydro-electric power, Ilulissat/Jakobshavn, West Greenland [1989, p.12-15, eng] 44-539
- Thomsen, T.**
 Monitoring of snow cover and surface runoff in Greenland by use of NOAA-AVHRR satellite data [1988, p.179-188, eng] 44-247
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 Data reduction of GOES information from DCP networks [1989, 15p., eng] 44-1480
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 Sensitivity and uncertainty analysis of a short-term sea ice motion model [1990, p.1713-1739, eng] 44-2359
 Uncertainty of summer ice drift forecasts [1988, p.287-295, eng] 44-1146
- Thomson, R.B.**
 Space and airborne technology applications to antarctic operations [1989, 159p., eng] 44-3444
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 Ice-thrust terrains and glaciotectionic settings in central Alberta [1989, p.1308-1318, eng] 44-765
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 Weathering trends in fine debris beneath a snow patch, Niwot Ridge, Front Range, Colorado [1989, p.307-321, eng] 44-2636
- Thornburgh, D.B.**
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- Thornes, J.E.**
 Prediction of ice formation on motorways in Britain [1984, 392p., eng] 44-202
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- Thorning, L.**
 Applied glacier research for planning hydro-electric power, Ilulissat/Jakobshavn, West Greenland [1989, p.257-261, eng] 44-585
 Glacier-hydrological conditions on the Inland Ice north-east of Jakobshavn/Ilulissat, West Greenland [1988, 1 fold, map and text, eng] 44-487
 Greenland ice cap aeromagnetic survey 1987: completion of the survey over the southern end of the Greenland ice cap [1988, p.70-72, eng] 44-486
 Measurements of ice thickness on glaciers at Isortoarsuq, tasia, southern West Greenland and Pákitsoq, central West Greenland [1989, p.59-63, eng] 44-4124
- Thornton, D.C.**
 Sulfur dioxide in the North American Arctic [1989, p.331-346, eng] 44-2184
- Thornton, S.I.**
 Resilient properties of Arkansas subgrades. Final report [1988, 116p., eng] 44-2814
- Thunholm, B.**
 Infiltration into a frozen heavy clay soil [1989, p.153-166, eng] 44-1322
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- Thwaites, R.J.**
 Characteristics of the present glaciers on the northern slope of Mt. Qiaogeli [1989, p.125-136, chi] 44-2407
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 Radio echo sounding in north Victoria Land, Antarctica [1989, p.111-117, eng] 44-3050
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 Aircraft studies of polar stratospheric clouds in the Arctic in 1988 [1990, p.226-229, eng] 44-4093
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 Comparison of soil freezing curve and soil water curve data for Windsor sandy loam [1989, p.2205-2210, eng] 44-2135
 Predicting unfrozen water content behavior using freezing point depression data [1990, p.54-60, eng] 44-2966
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- Unfrozen water contents of undisturbed and remolded Alaskan silt [1989, p.103-111, eng] 44-3094
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 Variations in ice gouge parameters related to different seabed soil types [1990, p.337-339, eng] 44-2244
- Tiedje, J.M.**
 Brief and vigorous N₂O production by soil at spring thaw [1990, p.1-4, eng] 44-2794
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 Durability of concrete containing fly ash [1986, 158p., eng] 44-1275
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 Assessing and forecasting the stability of landslide slopes [1988, 143p., rus] 44-35
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 Determination of critical brittleness temperatures in crack resistance testing [1990, p.489-493, eng] 44-4497
- Timofeev, D.A.**
 Problem of geomorphological correlation [1989, 253p., rus] 44-2048
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 Vertical structure and dynamics of the ocean's subglacial layer [1989, 141p., rus] 44-2628
- Timoney, K.P.**
 Patterns of bryophyte and lichen distribution in relation to latitudinal and edaphic gradients in the Canadian subarctic forest-tundra [1989, p.25-48, eng] 44-1202
- Timonina, N.N.**
 Permafrost as an oil and gas bearing measure in the upper part of the sedimentary mantle of the Pechora basin [1985, p.119-124, rus] 44-469
- Timoshenko, I.U.K.**
 Effect of ice and meteorological conditions on several representatives of true seals [1986, p.177-182, eng] 44-277
- Tinkelman, I.A.**
 Transport organization during the extended navigation period [1989, 125p., rus] 44-1752
- Tishkov, A.A.**
 All-Union conference on interactions of organisms in the tundra ecosystems, Vorkuta, Sep. 5-8, 1989. Summaries [1989, 194p., rus] 44-3578
 Future response of arctic ecosystems to global warming [1990, p.130-134, eng] 44-4111
- Tison, J.L.**
 Geochemistry of subglacial calcites: implications for the hydrology of the basal water film [1990, p.141-152, eng] 44-4047
 Isotopic, chemical and crystallographic characteristics of first-year sea ice from Breid Bay (Princess Ragnhild Coast -- Antarctica) [1989, p.261-268, eng] 44-64
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 Isotopic method of estimating conductive heat flux through antarctic first-year sea ice [1990, p.270-272, eng] 44-4208
- Titkov, S.N.**
 Facies of rock glaciers [1989, p.98-109, rus] 44-3238
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- Tiurin, A.I.**
 Cryo-facial features of rock streams in northern Transbaykal [1989, p.75-98, rus] 44-3237
 Rock streams in bald-peak mountain belts [1989, 148p., rus] 44-2403
- Tkachenko, V.A.**
 Long-wave nonlinearly-disperse models of surface wave transformation in an ice-covered sea [1988, p.41-46, rus] 44-2281
- Tkhamokov, B.Kh.**
 Function of dielectric constant of nonhomogeneous hail particles [1989, p.35-41, rus] 44-866
- Tilov, M.I.**
 Controlling hail: status and prospects [1989, p.5-19, rus] 44-807
 Determining the elemental composition of hailstones [1989, p.29-44, rus] 44-810
 Measuring the isotope composition of hydrogen in hailstones [1989, p.121-130, rus] 44-876
 Physical characteristics of hail and damage to agricultural crops [1989, p.137-145, rus] 44-821
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 Buildings and utilities in very cold regions: overview and research needs [1988, p.4-11, eng] 44-1011
 ROOFER: a management tool for maintaining built-up roofs [1989, 9p., eng] 44-2109
 Vapor retarders to control summer condensation [1989, p.566-572, eng] 44-1361
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 Detailed test plan: preproduction qualification (PPQ) test of aircrew clothing system, cold-weather [1990, 17p. + append., eng] 44-4465
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 Wet deposition and snowpack monitoring operations and quality assurance manual [1987, 139p., eng] 44-1273
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 New decisions in design projects for underground disposal of industrial liquid wastes from gas-production facilities [1989, p.143-151, rus] 44-4527
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- Tokunaga, K.**
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 On the failure of the boundary of polycrystalline ice by pore gas pressure [1988, p.336-341, jpn] 44-2702
- Tokura, I.**
 Fracture of pipes due to freezing of water enclosed inside [1985, p.149-154, jpn] 44-1329
 Study of freezing behavior in a pipe with water flow [1987, p.141-149, jpn] 44-1348
 Study on frost formation (dimensionless parameters correlating density and thickness of frost layer) [1984, p.76-88, eng] 44-1335
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- Tolstikhin, O.N.**
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 Diversification of snow removal systems [1988, p.47-61, jpn] 44-1289
 Preliminary study on the development of a new snow removal system: removal system by snow block [1985, p.139-156, jpn] 44-3172
- Tomabechi, T.**
 Development of wall protect the motorcar from snowstorm [1989, p.132-137, jpn] 44-2868
- Tomin, M.J.**
 Materials aspects for arctic vessels [1990, p. Y. 1-Y. 10, eng] 44-3486
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 Diurnal ice storage cooling systems in Army facilities [1989, p.1079-1085, eng] 44-442
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 Thermodynamics and kinetics of intracellular ice formation during freezing of biological cells [1990, p.1582-1593, eng] 44-2398
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 Acoustical imaging under the fallen snow [1988, p.152-156, jpn] 44-2676
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- Toon, O.B.**
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Physical processes in polar stratospheric ice clouds [1989, p.11, 359-11, 380, eng] 44-73
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Satellite-supported methods for studying ice fields and underground water in the Eastern Pamirs [1990, p.943-960, eng] 44-3965
- Topham, D.R.**
Field observations and flow patterns generated by an ice keel in stratified flow [1982, 230p., eng] 44-1508
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Heat transfer from a tube immersed in a fluidized bed with frosting [1990, p.73-91, eng] 44-4470
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Effect of low temperature on fracture resistance of 15Kh2NMFAA steel with austenitic surfacing [1990, p.110-113, rus] 44-4361
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Chicago Transit Authority evaluation of rail borne snow removal vehicle (S-500). Final report 1980-87 [1988, 31p., eng] 44-670
- Torsethaugen, K.**
Environmental conditions on the Norwegian continental shelf Barents Sea [1989, var.p., eng] 44-3329
- Townsend-Manning, M.**
Analysis of central arctic noise events [1987, 186p., eng] 44-1079
- Toyoda, M.**
Proceedings, Vol.3: Materials technology [1989, 739p., eng] 44-1115
- Toyosada, M.**
Development of new steel and welding procedure for hull structure of ice breaking vessels [1986, p.199-210, eng] 44-2063
- Tozawa, S.**
Indentation tests of laboratory and field ice sheets [1986, p.154-159, jpn] 44-2457
Method for the estimation of ice loads [1985, p.138-143, jpn] 44-2305
On the size effect of local ice pressures [1989, p.370-375, jpn] 44-2901
- Trahern, P.G.**
Comparative study of freeze-thaw processes for conditioning wastewater and water treatment sludges [1989, 250p., eng] 44-972
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Leaching of strong acid anions from snow during rain-on-snow events: evidence for two component mixing [1989, p.239-250, eng] 44-3038
Studies of snow chemistry in the Scottish Highlands [1989, p.1-13, eng] 44-3994
- Tremblay, A.**
Delineation of the frostline below an asphalt and a gravel road in southern Quebec [1990, p.247-256, fre] 44-3669
- Tremblay, C.**
Grazing and sedimentation of ice algae during and immediately after a bloom at the ice-water interface [1989, p.291-300, eng] 44-479
- Tricart, J.L.F.**
Environmental change of planet Mars demonstrated by landforms [1988, p.385-407, eng] 44-695
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Cloud, mesoscale model development and application studies Final report, October 11, 1983-June 20, 1987 [1987, 150p., eng] 44-678
Simulation of microwave brightness temperatures of an evolving hailstorm at SSM-I frequencies [1990, p.2-13, eng] 44-2758
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Surface measurements of carbon dioxide and methane at Alert during an arctic haze event in April 1986 [1989, p.383-397, eng] 44-2187
- Trodahl, H.J.**
Scattering and absorption of light by sea ice [1990, p.49-52, eng] 44-3817
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Characteristics of the interaction of pipelines with frozen ground [1989, p.37-39, rus] 44-95
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Crystallization of water in cooled solutions caused by heating the solutions at rates exceeding the cooling rate [1987, p.1656-1658, rus] 44-2425
- Trofimov, V.N.**
Technology of environmental protection during construction of oil and gas facilities on permafrost [1989, p.134-139, rus] 44-4525
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Contents and methods for compiling engineering geological maps of permafrost peat [1989, p.83-89, rus] 44-3707
First All-Union congress of engineering geologists, hydrogeologists and geocryologists [1989, p.88-91, rus] 44-1342
Forecasting of changes in natural conditions of West Siberia [1988, 23p. (Pertinent p.62-84, 101-168, 187-216), rus] 44-4411
Results of the first All-Union Congress of engineering geologists, hydrogeologists and geocryologists [1989, p.3-20, rus] 44-1252
Soil series of the West Siberian platform [1988, 127p., rus] 44-4397
- Troitskaia, V.A.**
Dynamics of spatial and temporal variations of electromagnetic processes in the Arctic (wave phenomena) [1990, p.40-43, eng] 44-4064
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25 years of the avalanche and mudflow control laboratory [1989, p.94-96, rus] 44-2613
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Chemically breaking the bond between ice and road surfaces [1987, 21p., eng] 44-3767
Chemistry of deicing roads: penetrating the ice. Final report 1986-87 [1988, 27p., eng] 44-626
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Effects of curing temperature and early freezing on the pull-out behavior of steel fibres [1989, p.400-410, eng] 44-38
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Naled formation and naled protection in the western part of the Baykal-Amur railroad [1990, p.89-101, rus] 44-4306
- Truett, J.C.**
Barrow Arch environment and possible consequences of planned offshore oil and gas development: proceedings of a synthesis meeting held at Girdwood, AK, Oct. 30-Nov. 1, 1983 [1984, 279p., eng] 44-2107
- Trunov, O.K.**
Icing [1986, p.10-15, eng] 44-1332
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Dynamic and thermodynamic sea ice model for subpolar regions [1990, p.13, 433-13, 457, eng] 44-4547
Link across "Storebaelt": ice forces on the piers of the western bridge [1989, p.1202-1209, eng] 44-4426
Role of ice interaction due to floe collisions in marginal ice zone dynamics [1989, p.14, 525-14, 537, eng] 44-454
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Artificial permafrost storage harnessed cold climate using heat pipes [1988, p.525-529, jpn] 44-2721
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- Tsuchiya, Y.**
Protection against blowing snow damage on traffic by weather forecast [1986, p.71-75, jpn] 44-2447
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Liquid level detection system of snow drainage [1989, p.289-294, jpn] 44-2892
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Ice-thrust terrains and glaciotectionic settings in central Alberta [1989, p.1308-1318, eng] 44-765
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Assessment on deterioration of off-shore concrete exposed to freezing and thawing [1986, p.513-518, jpn] 44-2492
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- Tumanian, B.P.**
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- U.S. Arctic Research Commission**
Arctic data and information: issues and goals [1989, 33p., eng] **44-268**
Arctic engineering research: initial findings and recommendations [1990, 17p., eng] **44-3617**
Arctic research: a focus of international cooperation. Report of the U.S. Arctic Research Commission to the President and the Congress of the United States of America for the period 1 October 1988-30 September 1989 [1990, 40p., eng] **44-3110**
- U.S. Coast Guard**
Arctic east arctic west summer 1989 cruise report [1989, Var. p., eng] **44-2611**
Report of Arctic Summer West 1988 operations USCGC Polar Star [1988, Var. p., eng] **44-462**
Report of the International Ice Patrol in the North Atlantic season of 1987 [1987, 132p., eng] **44-34**
- U.S. Geological Survey**
National water summary 1984: hydrologic events and issues [1984, 243p., eng] **44-1006**
- National water summary 1984. Hydrologic events, selected water-quality trends, and ground-water resources [1985, 467p., eng] **44-1007**
Yearbook, fiscal year 1988 [1989, 134p., eng] **44-657**
- U.S. Interagency Arctic Research Policy Committee**
Arctic research of the United States, Vol.3 [1989, 71p., eng] **44-471**
Arctic research of the United States, Vol.4 [1990, 120p., eng] **44-4466**
- U.S. Naval Oceanography Command Detachment, Asheville, NC**
Sea ice climatic atlas: Volume 2, Arctic East [1986, 147p., eng] **44-3405**
Sea ice climatic atlas: Volume 3, Arctic West [1986, 147p., eng] **44-3406**
- U.S. Naval Polar Oceanography Center**
Eastern-western arctic sea ice analysis, 1986 [1987, n.p., eng] **44-3254**
- U.S. Naval Support Force Antarctica**
Operation Deep Freeze 89/90 end of season report [1990, var. p., eng] **44-3327**
- Uccellini, L.W.**
Snowstorms along the northeastern coast of the United States: 1955 to 1985 [1990, 280p., eng] **44-3973**
- Uchiuni, T.**
Influence of deicing chemicals on sewage treatment [1989, p.330-335, jpn] **44-2897**
- Udachin, K.A.**
Clathrate polyhydrates of peralkylonium salts and their analogs [1987, p.75-116, rus] **44-2426**
- Uddin, W.**
Variability of pavement layer moduli from NDT measurements [1989, p.346-357, eng] **44-1670**
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Forecasting spring runoff in southern Sakhalin rivers [1989, p.42-47, rus] **44-2928**
- Ueda, H.**
Local road heating for the slope intersection [1989, p.189-194, jpn] **44-2878**
Research on the depth of frost penetration of road-heating section [1988, p.372-380, jpn] **44-2706**
- Ueda, H.T.**
Primary effluent as a heat source for heat pumps [1989, p.12-17, eng] **44-4255**
- Ueda, T.**
Apparent friction coefficient between steel and ice under high contact pressure [1989, p.404-409, jpn] **44-2906**
- Ueda, Y.**
Experimental study on frost heave under tri-axial stress [1989, 2p., jpn] **44-3223**
- Uematsu, E.**
Variation in ice concentration off Hokkaido Island [1988, p.161-175, jpn] **44-737**
- Uematsu, T.**
Blowing-snow numerical simulation [1987, p.411-416, jpn] **44-2554**
Numerical simulation of snowdrift development [1989, p.265-268, eng] **44-587**
Numerical simulation of snowdrift development [1989, p.115-120, jpn] **44-2865**
Tunnels formed below snow [1986, p.611-615, jpn] **44-2507**
- Uemura, S.**
Study on frost formation (dimensionless parameters correlating density and thickness of frost layer) [1984, p.76-88, eng] **44-1335**
- Ugarov, I.S.**
Moisture and density dependence of the thermal conductivity coefficient of frozen chernozem-meadow soils [1988, p.76-86, rus] **44-1965**
- Uglanov, I.N.**
Structure of the reclaimable soil layer in the northern and eastern regions of the USSR [1989, p.48-51, rus] **44-3553**
- Ujie, K.**
Snow drainage using seawater [1987, p.393-398, jpn] **44-2552**
- Ujihira, M.**
On the failure of the boundary of polycrystalline ice by pore gas pressure [1988, p.336-341, jpn] **44-2702**
- Ukhnaiev, V.A.**
Cryogenic textures of the periglacial zone of Zailiyskiy Alatau [1989, p.49-62, rus] **44-3234**
- Ulaby, F.T.**
Handbook of radar scattering statistics for terrain [1989, 357p., eng] **44-75**
Mapping freeze-thaw boundaries with SMMR (scanning multichannel microwave radiometer) data [1989, 28p., eng] **44-713**
Mesoscale monitoring of the soil freeze-thaw boundary from orbital microwave radiometry—Semiannual progress report [1988, 7p., eng] **44-892**
- Ulmec, S.**
Heating of dust particles enclosed in icy material [1989, p.194-195, eng] **44-525**
- Ulander, L.M.H.**
Active microwave observations of sea ice and iceberg [1986, p.13-24, eng] **44-1237**
Airborne radar observations [1988, p.119-147, eng] **44-1431**
- Availability of Geosat data during the BEPERS Pilot Study [1988, p.161-165, eng] **44-1434**
- Ullietz, P.**
State-of-the-art stress, strain and deflection measurements [1989, p.148-161, eng] **44-1653**
- Ulriksen, P.**
Helicopter impulse radar measurement [1988, p.149-151, eng] **44-1432**
- Umanski, N.S.**
Evaluating the effect of weather modification on cumulonimbus clouds for artificial increase of precipitation [1989, p.71-101, rus] **44-4233**
- Umebayashi, T.**
Distribution of snow cover in Honshu with due consideration of satellite imagery [1990, p.1-11, jpn] **44-3401**
- Umemura, T.**
Feasibility study of a system of urban snow removal and storage, integrated with air conditioning. Part III: An improvement of the system for Nagasaki City [1989, p.265-274, jpn] **44-2355**
- Umezawa, K.**
Use of antifreezing admixtures for concrete [1988, p.512-517, jpn] **44-2720**
- Umezawa, N.**
Experimental study on measures (air bubble method) against freezing in ports [1989, p.223-228, jpn] **44-3633**
Problems on freezing at harbors in Hokkaido [1988, p.277-282, jpn] **44-2694**
- Underwood, M.B.**
Thermal maturity and organic geochemistry of the Kandik basin region, east-central Alaska [1989, 41p., eng] **44-3764**
- Untersteiner, N.**
Estimating oceanic heat flux from sea-ice thickness and temperature data [1990, p.315-318, eng] **44-4217**
Partition of air-ice-ocean momentum exchange as a function of ice concentration, floe size, and draft [1989, p.12,739-12,750, eng] **44-309**
- Upper, C.D.**
Bacterial nucleation of ice in plant leaves [1986, p.730-738, eng] **44-1821**
- Upton, S.L.**
Development and field use of a snow collector for acid precipitation studies [1988, 69p., eng] **44-1051**
- Urakami, K.**
Conductive heat flux through active layer in tundra plain [1986, p.29-35, eng] **44-1617**
Field experiment of snow-melting for roads by using ground-water [1986, p.573-578, jpn] **44-2501**
Hydrological regime in tundra plain, St. Lawrence Island in Bering Sea [1986, p.1-13, eng] **44-1616**
- Uratsuka, S.**
Radio scattering characteristics of Antarctic Ice Sheet using airborne radio echo sounding data [1989, p.142-151, eng] **44-1812**
Step frequency radar experiments on the antarctic sea ice [1989, p.127-132, eng] **44-1810**
- Urianskaia, N.I.**
Surface activity of anti-icing additives [1989, p.162-167, eng] **44-1886**
- Usachev, V.F.**
Snow cover affected by a city [1989, 176p. + appends., rus] **44-2804**
- Use of a model basin in tests of sea ice moving against a cone-shape structure**
Use of a model basin in tests of sea ice moving against a cone-shape structure [1988, p.3, 7, eng] **44-2401**
- Ushakov, A.I.**
Clearing avalanche deposits [1989, p.54-61, rus] **44-1572**
- Ninth All-Union Glaciological Symposium in Tbilisi [1989, p.209-224, rus] **44-358**
Some results of determining the strength characteristics of avalanche-generating snow deposited by a snowstorm [1989, p.81-95, rus] **44-1576**
- Ushakova, L.A.**
Effect of errors in estimating avalanche parameters when calculating the strength of protective structures [1989, p.45-49, rus] **44-1570**
- Ushiki, S.**
Tests on improving the efficiency of snow removal devices on snow removal trucks [1989, p.195-200, jpn] **44-3525**
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Laboratory study of heat flux through coastal polynyas during frazil-ice production [1990, p.298-300, eng] **44-4213**
Rapid frazil ice production in coastal polynya: laboratory experiments [1989, p.117-126, eng] **44-1809**
- Using desalination technologies for water treatment**
Using desalination technologies for water treatment [1988, 74p., eng] **44-890**
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Fundamental research on supercooling phenomenon on heat transfer surface, investigation of an effect of characteristics of surface and cooling rate on a freezing temperature of supercooled water [1988, p.207-217, jpn] **44-1367**
Method of efficient ice cold energy storage using a heat transfer of direct contact phase change and a natural circulation of a working medium in an enclosure [1988, p.117-131, jpn] **44-1370**

- Utsumi, H.**
Construction and maintenance of snowbreak forest on Doou Expressway [1988, p.190-195, jpn] 44-2683
- Uttal, T.**
Remote sensing method of measuring atmospheric vapor fluxes: application to winter mountain storms [1990, p.22-34, eng] 44-3289
- Uvarova, L.A.**
Thermal meliorative countermeasures in the drying of cut peat in a frozen deposit [1989, p.19-24, rus] 44-1401
- Uyeda, H.**
Formation mechanisms of eighteen-branched snow crystals [1987, p.109-119, eng] 44-1618
Rada: observations of snowfalls in 1985 over the Shinjo basin—vertical scanning [1987, p.121-130, eng] 44-1748
Temperature drops produced by microbursts from snow clouds in the winter monsoon season in Hokkaido, Japan [1989, p.367-380, eng] 44-1749
- Vachon, P.W.**
Airborne SAR observations of ocean surface waves penetrating floating ice [1989, p.492-500, eng] 44-403
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Stratification of glaciers in Kamchatka [1989, p.144-148, rus] 44-3351
- Vainio, J.**
Ground base I [1988, p.31-40, eng] 44-1425
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Data on wind in clouds suitable for seeding to increase precipitation in winter [1989, p.19-25, rus] 44-4226
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Three-wave automated radar system [1989, p.93-99, rus] 44-815
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Theoretical investigation of the icebreaking cycle in 2-D [1990, p.111-126, eng] 44-2214
- Valero, F.P.J.**
Effects of the arctic haze as determined from airborne radiometric measurements during AGASP II [1989, p.225-244, eng] 44-2177
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Rime ice composition at the Elk Mountain Observatory—atmospheric processes, acid and nutrient deposition rates [1987, p.23-38, eng] 44-77
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Forty years of mass-balance observations on Glacier de Saenennes, French Alps [1989, p.269-272, eng] 44-588
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Winter in the Haut-Doubs region of France [1990, p.25-29, fre] 44-4326
- Valliere, D.**
Arctic research of the United States, Vol. 3 [1989, 71p., eng] 44-471
United States arctic research plan biennial revision: 1990-1991 [1989, 72p., eng] 44-746
- Vallon, M.**
Evolution, water balance, potential hazards, and control of a pro-glacial lake in the French Alps [1989, p.273-278, eng] 44-589
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Spatial facies of a group of pingo remnants on the southeast Frisian till plateau (the Netherlands) [1988, p.61-74, eng] 44-47
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Bond strength in reinforced concrete at low temperatures [1989, p.573-582, eng] 44-1117
- Van Gassen, W.**
Problems with the segregation potential theory [1989, p.95-97, eng] 44-833
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Average areal water equivalent of snow in a mountain basin using microwave and visible satellite data [1989, p.740-745, eng] 44-1201
Development and testing of a snowmelt-runoff forecasting technique [1990, p.135-144, eng] 44-3006
- Van Klaveren, R.W.**
Hydraulic erosion resistance of thawing soil [1987, 29p., eng] 44-3931
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Wind-generators in hybrid systems powering remote telecommunication sites in the far north [1987, p.437-442, eng] 44-1456
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Application of time domain reflectometry to measure solute redistribution during soil freezing [1990, p.186-194, eng] 44-2982
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Lower Rhine: geomorphological changes [1989, p.167-182, eng] 44-1251
- Van Wagoner, N.A.**
Siliceous sponge communities, biological zonation, and recent sea-level change on the arctic margin: Ice Island results [1989, p.2341-2355, eng] 44-2275
- Van Ypersele, J.P.**
Simulations of the annual sea ice cover in the Weddell Sea [1989, 17p., eng] 44-1354
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Geomorphic processes on scree slopes during winter in Gaspésie, Quebec [1989, p.389-406, fre] 44-2065
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Convective heat transfer measurements from a NACA 0012 airfoil in flight and in the NASA Lewis Icing Research Tunnel [1990, 20p., eng] 44-2811
Measurement of local convective heat transfer coefficients from a smooth and roughened NACA-0012 airfoil: flight test data [1988, 17p., eng] 44-1100
- Vannoy, J.R.**
Arctic basins physiography. Statement of present knowledge (1983) [1987, p.63-82, fre] 44-598
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Ecological problems during construction of main pipelines [1989, p.118-123, rus] 44-4522
- Varges, G.R.**
Full-scale experiences with Thyssen/Waas icebreakers [1990, p.H/1-H/14, eng] 44-3471
- Varichenko, S.A.**
Prediction of the effect of a flare on permafrost [1986, p.33-37, eng] 44-1729
- Varlamov, S.P.**
Forecasting multi-year variations in the thermal regime of soils in the northeast of Western Siberia [1988, p.113-121, rus] 44-1969
Formation of the thermal regime of a talik above permafrost [1989, p.38-47, rus] 44-147
- Varsta, P.**
Research on icebreaking process [1989, p.1297-1317, eng] 44-4431
Sea transport in ice-covered waters [1988, 22p., eng] 44-3409
- Vashchalova, T.V.**
Method of paleogeographic reconstruction of avalanche activity for the purpose of long range forecasting (in the example of the Khibiny Mountains) [1989, p.145-155, rus] 44-1583
- Vasil'chuk, I.U.K.**
Engineering geological mapping [1989, 118p., rus] 44-3706
Isotope geochemical characteristics of the Late-Pleistocene ice wedge complex of Kular depression [1990, p.154-157, rus] 44-2957
Problems of medium-scale mapping of the ice content and cryogenic types of frozen layers in the lower reaches of the Kolyma River [1989, p.89-96, rus] 44-3708
- Vasilenko, N.G.**
Formation process of river runoff during felling periods in a permafrost region [1989, p.92-98, rus] 44-154
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Small-scale hydrophysical processes in the surface layer of the sea close to pack ice [1987, p.63-66, rus] 44-1595
- Vasilenko, V.N.**
Monitoring of snow cover pollution in the USSR by background and impact levels [1989, p.42-55, rus] 44-2937
Vertical distribution characteristics of sulphate deposition in snow cover in the mountain areas of the USSR [1989, p.86-89, rus] 44-2850
- Vasil'ev, I.S.**
Dynamics of slopes and cryogenic structure of the active layer in the mountains of eastern Yakutia [1989, p.143-152, rus] 44-3242
- Vasil'ev, N.I.**
Core drilling with semi-automatic borehole tools on hoist cable [1989, p.51-58, rus] 44-3494
- Vasil'ev, S.E.**
Study of thermal processes and technological systems in processing open freight cars using an induction assembly for mechanizing the unloading of frozen coal [1988, p.67-74, rus] 44-1501
- Vass, W.P.**
Distribution of chlorinated hydrocarbon pesticides and PCBs in the Arctic Ocean [1989, 224p., eng] 44-3804
Toxaphene and other organochlorines in Arctic Ocean fauna: evidence for atmospheric delivery [1989, p.307-313, eng] 44-1933
- Vaughn, B.**
Determination of the surface and bed topography in central Greenland [1990, p.17-30, eng] 44-3717
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Icing hazards on supply vessels and stand-by boats [1986, 87p., eng] 44-1277
Time-dependent numerical model for sea spray icing on marine structures [1988, p.571-579, eng] 44-1174
- Vehviläinen, B.**
Operational snow accumulation and snowmelt modeling [1989, p.213-222, eng] 44-2193
Simulation of soil frost depth and effect on runoff [1989, p.9-24, eng] 44-376
Snow cover and snowmelt runoff model in the forest zone [1989, p.17-26, eng] 44-1823
- Veklich, M.F.**
Indicators of Late Cenozoic ice sheets and paleoclimates in the Ukraine [1989, p.167-173, rus] 44-1920
- Veldhuis, H.**
Wetlands of subarctic Canada [1988, p.55-96, eng] 44-1365
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Glaciations in the east European region of the USSR [1989, p.137-146, rus] 44-1916
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- Paleoclimates and glaciation during the Pleistocene [1989, 247p., rus] 44-1911**
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Albedo dichotomy of Rhea: Hapke analysis of Voyager photometry [1989, p.336-353, eng] 44-3345
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Numerical simulation of glacial periods [1989, p.1336-1341, rus] 44-1757
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Mapping snow cover with satellite imagery: comparison of results from three sensor systems [1989, p.59-68, eng] 44-505
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Structure and debris characteristics of medial moraines in Jotunheimen, Norway: implications for moraine classification [1989, p.276-280, eng] 44-1556
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Forecasting spring runoff in southern Sakhalin rivers [1989, p.42-47, rus] 44-2928
- Verma, S.**
Antarctic stratospheric ice crystals [1989, p.16,449-16,457, eng] 44-1624
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Interaction of ice fields with offshore structures [1983, 23p., eng] 44-606
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Using aerial gamma surveys of snow cover to forecast spring flood runoff [1989, p.82-96, rus] 44-3910
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Deglaciation pattern indicated by the ice-margin formations in Northern Karelia, eastern Finland [1988, p.317-327, eng] 44-81
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Dynamic light scattering at the ice-solution interface [1989, 103p., eng] 44-3016
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Frozen soil deformation and failure under different loading [1989, p.465-471, eng] 44-921
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Diagrams of structural strength of steels with respect to cold brittleness [1990, p.51-56, rus] 44-4349
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Future response of arctic ecosystems to global warming [1990, p.130-134, eng] 44-4111
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Ice reserves and main features of the current glaciation of Tien Shan [1989, p.117-130, rus] 44-3240
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Simulation of the effects of frost on the performance of roads subjected to salt deicing [1989, p.257-261, fre] 44-4024
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Correlation of Quaternary deposits and events around the margin of the Beaufort Sea [1986, 60p., eng] 44-779
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Microbial ecosystems of Antarctica [1988, 304p., eng] 44-3711
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Current, CTD, and pressure measurements in possible dispersal regions of the Chukchi Sea [1984, p.255-333, eng] 44-622
Nearshore and coastal circulation in the northeastern Chukchi Sea. Final report [1985, p.1-104, eng] 44-1720
- Vinogradov, M.E.**
Models of ocean processes [1989, 365p., rus] 44-2282
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Many-year variability of general circulation structure and the character of its display in atmospheric processes of the polar zone [1990, p.170-176, eng] 44-4086
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- Vinogradova, G.V.**
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- Definition of research needs to address airport pavement distress in cold regions (1989, 142p., eng) **44-1722****
- Determination of fines produced during crushing, handling, and placement of aggregates employed in roadway construction. Final report 21 May 85-30 Sep 86 (1986, 74p., eng) **44-1247****
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Fatigue strength at subzero temperature of films made of polymer mixtures based on thermoplastic polyurethane (1987, p.685-693, eng) **44-1881**
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- Bering Sea data collection aboard USCGC Polar Star, Feb-Mar, 1984. Vol.1. Environmental data. Draft report Mar-Nov. 1984 (1984, 259p., eng) **44-1214****
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- Ice conditions along Alaskan marine transportation routes (1990, p.R.1-R.8, eng) **44-3480****
- Level ice resistance of USCGC Polar Sea in Antarctica (1988, 94p., eng) **44-1944****
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- Ship icebreaking dynamics and level ice resistance testing aboard USCGC Polar Star in Antarctica. Final report Vol.2. Technical appendices (1985, 302p., eng) **44-1281****
- Summer multi-year ice properties in the Beaufort Sea (October 1982) (1982, 116p., eng) **44-1403****
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Arctic groans from ice adhesion (1989, p.86-90, eng) **44-2195**
- Arctic groans from icing (1989, p.22-23, rus) **44-116****
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Snow clones (1989, p.52-54, eng) **44-1093**
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- Volkov, V.N.**
Study on the stability of culverts on the Baykal-Amur railroad (1990, p.129-137, rus) **44-4311**
- Volkov, V.V.**
Effect of stress concentration on technological strength of welded joints of low-alloy high-strength steel (1990, p.150-153, rus) **44-4370**
- Volkova, V.P.**
Characteristics of the formation of ground water runoff in the active water transfer zone in cryohydrogeological structures (1989, p.3-13, rus) **44-143**
- Rock streams in bald-peak mountain belts (1989, 148p., rus) **44-2403****
- Volkovintser, V.I.**
Geography of soils in the permafrost region (1989, p.258-263, rus) **44-3556**
- Voller, V.R.**
Fast implicit finite-difference method for the analysis of phase change problems (1990, p.155-169, eng) **44-3797**
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LAMPs MK III environmental capabilities (1989, p.53-55, eng) **44-3137**
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Precipitation anomalies factor as an indicator of massive avalanche formation and catastrophic avalanches (1989, p.128-135, rus) **44-1581**
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Selecting parameters of the main cassette part of the anti-hail rocket "Crystal" (1989, p.97-104, rus) **44-873**
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Light attenuation matrices for certain types of ice (1987, p.361-363, eng) **44-2058**
- Volosevich, P.I.U.**
Role of alloying in changing strength and failure characteristics of previously deformed structural steels (1990, p.56-61, rus) **44-4350**
- Volotovskaja, T.N.**
Biological activity of frozen meadow-chernozem soils in the Amga River valley (1988, p.37-40, rus) **44-1962**
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Effect of vertical wind shear on the distribution of artificial crystallization in thick supercooled cloud layers (1989, p.3-11, rus) **44-4224**
- Von der Osten-Woldenburg, H.**
Icequakes on Ekström Ice Shelf near Aika Bay, Antarctica (1990, p.31-36, eng) **44-3718**
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Airplane instrument to detect ice particles (1989, p.545-551, eng) **44-112**
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Effect of freeze-thaw activity on water retention, hydraulic conductivity, density, and surface strength of two soils frozen at high water content (1990, p.45-53, eng) **44-2965**
- Soil structure and frost depth as affected by soil compaction (1990, p.295-303, eng) **44-2998****
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Crevasse deformation and examples from Ice Stream B, Antarctica (1990, p.3-10, eng) **44-3715**
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Limiting state of metals at cryogenic temperatures under impulse magnetic exposure (1990, p.233-237, rus) **44-4389**
- Vorob'ev, V.**
Nuclear plant safety. Sevморпут LASH containership (1989, p.26-28, eng) **44-4120**
- Vorob'eva, T.I.**
Effect of anti-hail efforts on the polluted atmosphere and of deposits by hail modification products (1989, p.145-151, rus) **44-822**
- Vorokov, V.Kh.**
Natural conditions and the problems in protecting the environment near the construction site of a railroad line through the Caucasian mountain pass (1989, p.67-77, rus) **44-1783**
- Voronin, A.D.**
Physical chemical processes in soil cryogenesis (1989, p.264-268, rus) **44-3557**
- Voronov, G.S.**
Dissipation of supercooled stratiform clouds by pyrotechnics (1989, p.31-38, rus) **44-4228**
- Effect of vertical wind shear on the distribution of artificial crystallization in thick supercooled cloud layers (1989, p.3-11, rus) **44-4224****
- Vorren, T.O.**
Glacigenic sediments on a passive continental margin as exemplified by the Barents Sea (1989, p.251-272, eng) **44-3938**
- Vortisch, W.**
Relative differences between glacially crushed quartz transported by mountain and continental ice—some examples from North America and East Africa; discussion (1989, p.1195-1205, eng) **44-2277**
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Arctic climate and its variations: aspects of international cooperation (1990, p.153-163, eng) **44-4084**
- Voskresenskii, I.S.**
Pleistocene glaciations in the upper and middle Kolyma drainage basin (1989, p.232-238, rus) **44-1927**
- Voskresenskii, S.S.**
Pleistocene glaciations in the upper and middle Kolyma drainage basin (1989, p.232-238, rus) **44-1927**
- Voss, K.J.**
Beam scattering measurements in young sea ice (1990, p.53-57, eng) **44-3818**
- Laboratory measurements of optical beams in young sea ice (1989, p.1606-1613, eng) **44-3625****
- Vostokova, A.V.**
Mapping seasonal soil freezing and thawing within the USSR (1989, p.30-37, rus) **44-619**
- Methods of producing a map of the seasonal freezing and thawing of soils (1989, p.50-55, rus) **44-2523****
- Vrana, A.**
Comparison of ship-observed sea ice conditions with NOAA AVHRR imagery in the Casey region, Antarctica (1989, p.62-79, eng) **44-3447**
- Vsesoiuznaia konferentsiia: Ekologiya neftegazovogo kompleksa, 1st, Nadym, Oct. 3-5, 1988**
All-Union Conference on the Ecology of Oil and Gas Complexes, 1st, Nadym, Oct. 3-5, 1988. Summaries (1988, 241p., rus) **44-3326**
- Vsesoiuznaia konf.entsiia "Ekologiya neftegazovogo kompleksa", 1st, Nadym, SSSR, Oct. 3-6, 1988**
Ecological impact of the oil and gas industry. Proceedings of the First All-Union Conference, Oct. 3-6, 1988, Nadym, USSR, Issue No.1, Pt. No.1 (1989, 195p., rus) **44-4505**
- Vsesoiuznoe soveshchanie po lavinam, 3rd, Kirovsk, USSR, Sep. 1986**
All-Union Conference on Avalanches, 3rd, Kirovsk, USSR, Sep. 1986. Proceedings (1989, 247p., rus) **44-1562**
- Vsesoiuznoe soveshchanie Vzaïmodeistviia organizmov v tundrovyykh ekosistemakh, Vorkuta, Sep. 5-8, 1989**
All-Union conference on interactions of organisms in the tundra ecosystems, Vorkuta, Sep. 5-8, 1989. Summaries (1989, 144p., rus) **44-3578**
- Vsesoiuznyi nauchno-tekhnicheskii seminar, 10th, Moscow, July 4-6, 1989**
All-Union Scientific and Technical Seminar, 10th, Moscow, July 4-6, 1989. Using new geophysical methods to solve engineering geological and hydrogeological problems. Summaries (1989, 272p. (Pertinent p.124-129, 191-206, 237-239), rus) **44-3489**
- Vsesoiuznyi s"ezd pochvedovedov, 8th, Novosibirsk, Aug. 14-18, 1989**
All-Union Congress of Soil Scientists, 8th, Novosibirsk, Aug. 14-18, 1989. Summaries. Book 1 (1989, 299p. (Pertinent p.119-123), rus) **44-3551**
- All-Union Congress of Soil Scientists, 8th, Novosibirsk, Aug. 14-18, 1989. Summaries. Book 6 (1989, 290p., rus) **44-3552****
- Vsevolozhskii, V.A.**
Development of the chairs of engineering geology, hydrogeology and geocryology in the geology department (1989, p.86-110, rus) **44-1340**
- Water balance formation in intensive water transfer zones in areas of the "southern" type cryolithozone (1989, p.13-23, rus) **44-144****
- Vtiurin, B.I.**
Ground ice of Spitsbergen (1989, p.69-75, rus) **44-338**
- Ground ice on Svalbard (1989, p.1-8, eng) **44-999****
- Vuglinskii, V.S.**
Improving the methods for calculating the water surface temperature of a reservoir from continental weather station data (1989, p.10-119, rus) **44-4410**
- Vysheirskii, V.S.**
Gas survey in the snow of Kuznetsk basin (1989, p.182-183, rus) **44-2605**

- W.F. Weeks Sea Ice Symposium: Sea Ice Properties and Processes, San Francisco, CA, Dec. 1988**
Sea Ice Properties and Processes; Proceedings of the W.F. Weeks Sea Ice Symposium [1990, 299p., eng] 44-3808
- Wada, M.**
Report on meteorological research observations by the 29th Japanese Antarctic Research Expedition in 1988 [1990, p.46-75, jpn] 44-3741
- Wada, T.**
Experimental study on the process of snow accumulation on a bridge using reduced-scale model outdoors [1987, p.439-444, jpn] 44-2559
- Waddell, S.R.**
High frequency ambient sound in the Arctic [1988, p.555-563, eng] 44-1710
- Waddington, E.**
Time-scale for adjustment of glaciers to changes in mass balance [1989, p.355-369, eng] 44-1897
- Waddington, J.**
Snow management increases alfalfa yields [1989, p.134-137, eng] 44-515
- Wadhams, P.**
Breakup of antarctic fast ice [1989, p.61-76, eng] 44-829
- Concurrent remote sensing of arctic sea ice from submarine and aircraft [1989, 20p., eng] 44-3376
- Evidence for thinning of the arctic ice cover north of Greenland [1990, p.795-797, eng] 44-4035
- Processes determining the bottom topography of multiyear arctic sea ice [1989, 5p., eng] 44-3375
- Processes determining the bottom topography of multiyear arctic sea ice [1990, p.136-141, eng] 44-3837
- Sea ice conditions in the Arctic Ocean [1987, p.83-94, eng] 44-599
- Snow cover effects on antarctic sea ice thickness [1990, p.16-21, eng] 44-3810
- Waggoner, A.P.**
Enhanced cold cloud clearing by pulsed CO₂ lasers [1989, p.3039-3043, eng] 44-1196
- Wagner, J.F.**
Influence of freeze-thaw cycles on clay structures [1989, p.573-575, eng] 44-941
- Wagner, R.D.**
Laminar flow integration: flight tests status and plans [1986, p.485-518, eng] 44-1406
- Wagner, W.**
Fundamental equation for water covering the range from the melting line to 1273 K at pressures up to 25,000 MPa [1989, p.1537-1564, eng] 44-3698
- Waidlich, W.C.**
Earthwork construction [1990, p.25-48, eng] 44-4267
- Wainwright, P.**
Arctic data compilation and appraisal. Vol 16. Queen Elizabeth Islands: chemical oceanography 1952 through 1985 [1986, 125p., eng] 44-1462
- Waitt, R.B.**
Swift snowmelt and floods (lahars) caused by great pyroclastic surge at Mount St. Helens volcano, Washington, 18 May 1980 [1989, p.138-157, eng] 44-2350
- Wakabayashi, M.**
Meteorological observations at Syowa Station in 1985 by the 26th Japanese Antarctic Research Expedition [1989, p.191-219, jpn] 44-1470
- Wakabayashi, O.**
Development of arch type PC shelters [1986, p.307-312, jpn] 44-2474
- On construction of P.C. snow shelter [1987, p.433-438, jpn] 44-2558
- Wakabama, G.**
Automatic weather station at Asuka Camp, Antarctica [1986, p.82-85, jpn] 44-2449
- Effect of the equatorial Pacific Ocean on interannual variability in the Okhotsk Sea ice [1989, p.71-77, jpn] 44-3126
- Evaporation characteristics of a small watershed at Alaskan permafrost area in summer [1988, p.103-116, jpn] 44-735
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- Structure of a land breeze and snowfall enhancement at the leading edge [1989, p.757-770, eng] 44-3307
- Vertical structure in convective clouds producing graupels and snowflake aggregates [1989, p.41-47, eng] 44-1800
- Wakatsuchi, M.**
Convective mixing and formation of sea ice in the Weddell-Endeavour basin of the southern ocean in the years when the Weddell polynya appeared [1985, p.40-41, jpn] 44-58
- Laboratory study of heat flux through coastal polynyas during frazil-ice production [1990, p.298-300, eng] 44-4213
- Numerical study of barotropic instability associated with the Soya Warm Current in the Sea of Okhotsk [1990, p.570-584, eng] 44-3691
- Observations of ice-ocean eddy streets in the Sea of Okhotsk off the Hokkaido coast using radar images [1990, p.585-594, eng] 44-3692
- Rapid frazil ice production in coastal polynya: laboratory experiments [1989, p.117-126, eng] 44-1809
- Satellite observations of the ice cover of the Kuril Basin region of the Okhotsk Sea and its relation to the regional oceanography [1990, p.13,393-13,410, eng] 44-4544
- Wake, C.P.**
Glaciochemical investigations as a tool for determining the spatial and seasonal variation of snow accumulation in the central Karakoram, northern Pakistan [1989, p.279-284, eng] 44-590
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- Influence of summertime precipitation events on meltwater production in the Karakoram, northern Pakistan [1989, p.28-35, eng] 44-3996
- Review of Central Asian glaciochemical data [1990, p.301-306, eng] 44-4214
- Walczak, P.**
Determination of the resistance of the underside of ice cover [1989, p.152-167, eng] 44-2032
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Prediction of multiyear ice impact loads utilizing Hans Island data [1988, p.311-322, eng] 44-1149
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Use of off-road vehicles and mitigation of effects in Alaska permafrost environments: a review [1990, p.63-72, eng] 44-3049
- Wetland soils and vegetation, arctic foothills, Alaska [1989, 89p., eng] 44-1600
- Walker, E.**
Experimental evidence for modifying the current physical model for ice accretion on aircraft surfaces [1986, 47p., eng] 44-955
- Walker, L.R.**
Soil nitrogen changes during primary succession on a flood-plain in Alaska, U.S.A. [1989, p.341-349, eng] 44-2007
- Walker, M.D.**
Wetland soils and vegetation, arctic foothills, Alaska [1989, 89p., eng] 44-1600
- Wall, D.B.**
Albedo decay of prairie snows [1990, p.179-187, eng] 44-3420
- Walla, M.D.**
Toxaphene and other organochlorines in Arctic Ocean fauna: evidence for atmospheric delivery [1989, p.307-313, eng] 44-1933
- Wallace, J.S.**
Use of dimethyl ether as a starting and for methanol-fueled SI engines at low temperatures [1988, p.3, 1079-3, 1097, eng] 44-4247
- Wallerstedt, R.**
Review of parametric ice thickness measurement sonar testing at Resolute Bay, Canada 1987 [1989, p.427-450, eng] 44-3161
- Walsh, J.E.**
Fram Strait ice flux calculations and associated arctic ice conditions [1989, p.61-67, eng] 44-297
- Multiyear sea ice in the Arctic: model- and satellite-derived [1990, p.11,613-11,628, eng] 44-4236
- Short-term climatic variability of the Arctic [1990, p.237-250, eng] 44-3205
- Walsh, M.E.**
Alternative methods of using STB for decontamination at low temperatures [1989, 13p., eng] 44-2110
- Analytical methods for detecting military-unique compounds [1989, p.13-14, eng] 44-3747
- Analytical methods for determining nitroguanidine in soil and water [1989, 27p., eng] 44-1785
- Development of an analytical method for the determination of explosive residues in soil. Part 3. Collaborative test results and final performance evaluation [1989, 89p., eng] 44-3757
- Environmental transformation products of nitroaromatics and nitramines: literature review and recommendations for analytical development [1990, 21p., eng] 44-3178
- Ion-pairing RP-HPLC method for determining tetrazene in water and soil [1989, p.159-179, eng] 44-2832
- Liquid chromatographic method for determination of extractable nitroaromatic and nitramine residues in soil [1989, p.890-899, eng] 44-2345
- Walsh, S.J.**
Cartographic modeling of snow avalanche path location within Glacier National Park, Montana [1990, p.615-621, eng] 44-4472
- Walter, B.A.**
Study of the planetary boundary layer over the polynya downwind of St. Lawrence Island in the Bering Sea using aircraft data [1989, p.255-282, eng] 44-411
- Walter, R.J., Jr.**
Modeling of meltwater infiltration in subfreezing snow [1990, p.1001-1012, eng] 44-4129
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Observations of sorted patterned ground features, High Valley, Tangle Lakes region, central Alaska, U.S.A. [1989, p.9-106, eng] 44-1866
- Walters, R.A.**
Variability of glacier mass balances in western North America [1989, p.365-374, eng] 44-2942
- Wan, Z.M.**
Land-surface temperature measurement from space: physical principles and inverse modeling [1989, p.268-278, eng] 44-45
- Wang, C.Y.**
Analysis of the composite ice wall [1990, p.21-39, eng] 44-3798
- Wang, H.Q.**
Statistical characteristics of frozen soil in Jilin Province [1989, p.34-43, chi] 44-648
- Wang, J.**
Medium-range prediction analysis and equation of snowmelt runoff of the Heihe River in the Qilian Mt. [1988, p.64-74, chi] 44-637
- Method of determining the lower limit of permafrost using correlation information - as exemplified by the Qilian Mt. region [1988, p.120-127, chi] 44-643
- Snow cover distribution in the Heihe River in the Qilian Mt. [1988, p.55-63, chi] 44-636
- Wang, J.C.**
Study on seasonally thawed layer in the basin of Huola River in northern Da Hinggan Ling [1989, p.203-214, chi] 44-2415
- Wang, L.W.**
Research of snow temperature and melt-water percolation in the infiltration of a glacier [1989, p.60-68, chi] 44-651
- Wang, P.**
Applications of environmental isotope tritium to research into ground ice in permafrost regions of Qinghai-Xizang Plateau [1989, p.53-59, chi] 44-650
- Geochemistry of glaciers in China [1989, p.122-137, chi] 44-3888
- Wang, Q.**
Radar backscatter measurements over saline ice [1990, p.693-615, eng] 44-3901
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New anti-ice type of articulated single-point mooring structure [1988, p.363-367, eng] 44-1154
- Wang, S.L.**
Applications of environmental isotope tritium to research into ground ice in permafrost regions of Qinghai-Xizang Plateau [1989, p.53-59, chi] 44-650
- Formation and evolution of permafrost on the Qinghai-Xizang Plateau since the Late Pleistocene [1989, p.69-75, chi] 44-652
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- Wang, S.W.**
Two-dimensional numerical hailcloud model [1989, p.200-211, eng] 44-529
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Historical climatic records in ice cores from the surface layer of Wilkes Land, Antarctica [1990, p.460-466, eng] 44-3914
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Influences of frost heaving on the determination of pollen accumulation rates [1989, p.223-229, chi] 44-2417
- Pollen profile from the permafrost region in Southwest Yukon Territory and its paleoenvironmental significance [1989, p.99-112, chi] 44-2405
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Salt redistribution and heave of saline soil during cooling [1989, p.231-238, chi] 44-2418
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Study on jokulhlaups (glacier outburst floods) of the Yarkant River [1989, p.169-177, eng] 44-3167
- Wang, Z.T.**
Recent variations of glaciers and the influence of climate and glacier fluctuations on runoff in China [1989, p.45-52, eng] 44-171
- Warburton, J.**
Alpine proglacial fluvial sediment transfer [1989, 471p., eng] 44-2101
- Management of sediment transported by glacial melt-water streams and its significance for the estimation of sediment yield [1989, p.1-5, eng] 44-537
- Ward, D.B.**
Transient moisture and heat transfer in multi-layer non-isothermal walls: comparison of predicted and measured results [1989, p.513-531, eng] 44-1359
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Effect of concrete specifications and inspection practices on freeze-thaw resistance: a field study [1990, p.271-276, eng] 44-3703
- Strength and durability of concretes containing 50% Portland cement replacement by fly ash and other materials [1990, p.19-27, eng] 44-2999
- Ware, M.**
Variability of soil development on preboreal moraine ridge crests, Brenseterdalen, southern Norway [1989, p.31-36, eng] 44-907
- Warn-Varnas, A.**
Predictions and studies with a one-dimensional ice ocean model - Final report [1987, 124p., eng] 44-1286
- Warner, J.I.**
Development of a procedure for predicting propeller-ice interaction forces [1989, 263p., eng] 44-391

- Warren, C.R.**
Topographic and glaciological controls on Holocene ice-sheet margin dynamics, central West Greenland [1990, p.307-310, eng] **44-2215**
- Warren, G.C.**
Ski friction and thermal response [1989, p.223-225, eng] **44-2324**
Thermal response of downhill skis [1989, 40p., eng] **44-2361**
- Warren, S.G.**
Soot in the atmosphere and snow surface of Antarctica [1990, p.1811-1816, eng] **44-2383**
- Washington, W.M.**
CO₂ climate sensitivity and snow-sea-ice albedo parameterization in an atmospheric GCM coupled to a mixed-layer ocean model [1990, p.283-306, eng] **44-2278**
- Washizaki, T.**
Solidification interface shape in plane channel flow subjected to wall cooling [1987, p.32-48, eng] **44-1337**
- Watanabe, H.**
"Himuro project '88" Funagata total snow utility system; retarding culture by snow [1988, p.541-545, jpn] **44-2724**
"Himuro project '88" Funagata type total snow utility system [1988, p.536-540, jpn] **44-2723**
Properties of concrete using of antifreezing admixtures [1986, p.525-530, jpn] **44-2494**
Strength of concrete using dealcalized antifreezing admixtures under field environment in winter [1989, p.618-623, jpn] **44-2922**
Use of antifreezing admixtures for concrete [1988, p.512-517, jpn] **44-2720**
- Watanabe, K.**
China-Japan collaborative research program on antarctic biology at Great Wall Station on King George Island, South Shetland Islands in the summer of 1988/89 [1990, p.94-101, jpn] **44-3742**
Design of a concrete structure in icy waters [1987, p.311-317, jpn] **44-2544**
Pigment data of sea ice cores collected from fast ice area near Syowa Station, Antarctica, from Mar. 1983 to Jan. 1984 [JARE-24] [1990, 88p., eng] **44-3357**
Propagation characteristics of electromagnetic waves in snow pack [1985, p.389-393, jpn] **44-2333**
Rate of photosynthesis in phytoplankton under fast ice at Showa Station, Antarctica [1985, p.201, jpn] **44-62**
Research & development of electrical equipment applied snow-removal (for residential and/or medium store) [1988, p.360-365, jpn] **44-2704**
Seasonal change in heterotrophic bacteria under fast ice at Showa Station, Antarctica [1985, p.200, jpn] **44-61**
Seasonal changes in heterotrophic bacteria under fast ice near Syowa Station, Antarctica [1989, p.329-333, eng] **44-463**
Simulation of groundwater considering snowmelt [1987, p.501-506, jpn] **44-3518**
Snowmelt mechanism of snow cover in a warm region [1987, p.105-120, jpn] **44-1288**
- Watanabe, M.**
n-alkylphenyldimethylammonium salts as inhibitors of the ice nucleating activity of *Erwinia ananas* [1990, p.549-550, eng] **44-3582**
- Watanabe, N.**
Statistical analysis on dominating factor of pH in rain and snow samples [1988, p.389-397, eng] **44-1299**
- Watanabe, O.**
Dating of snow ice cores by means of instrumental analyses [1989, p.156-190, jpn] **44-1469**
Glaciological data collected by the 29th Japanese Antarctic Research Expedition in 1988-1989 [1990, 77p., eng] **44-3448**
Seasonal variation of oxygen isotopic composition of firn cores in the antarctic ice sheet [1990, p.256-260, eng] **44-4205**
Thermal conductivity of frozen soils [1981, p.109-112, jpn] **44-3089**
Thinning of the ice sheet estimated from total gas content of ice cores in Mizuho Plateau, East Antarctica [1990, p.131-135, eng] **44-4178**
- Watanabe, T.**
Analysis of frost formation on vehicle windows [1987, p.155-166, eng] **44-1191**
- Watanabe, Y.**
Development of arch type PC shelters [1986, p.307-312, jpn] **44-2474**
- Watanabe, Z.**
Control system of snow removing gutters [1987, p.248-253, jpn] **44-2540**
- Waters, N.M.**
Dependence of antarctic surface mass balance on temperature, elevation, and distance to open ocean [1990, p.3517-3531, eng] **44-3069**
- Waters, R.A.**
Development and field use of a snow collector for acid precipitation studies [1988, 69p., eng] **44-1051**
- Watson, M.S.**
Domation Range ice core, Queen Maud Mountains, Antarctica: general site and core characteristics with implications [1990, p.11-16, eng] **44-3716**
- Watson, T.B.**
NOAA WP-3D instrumentation and flight operations on AGASP-II [1989, p.3-16, eng] **44-2165**
- Watt, W.E.**
Hydrology of floods in Canada: a guide to planning and design [1989, 245p., eng] **44-2763**
- Waylen, P.R.**
Effects of interbasin transfer on streamflow regimes, north-western Ontario, Canada [1988, p.331-341, eng] **44-260**
Statistical properties of freeze date variables and the length of the growing season [1989, p.1314-1328, eng] **44-1526**
- Weare, J.H.**
Prediction of mineral solubilities in natural waters: a chemical equilibrium model for the Na-K-Ca-Mg-Cl-SO₄-H₂O system at temperatures below 25 C. [1990, p.575-590, eng] **44-3363**
- Weather, water levels and flows, and ice conditions of the St. Marys River system for extended season navigation. Final technical report**
Weather, water levels and flows, and ice conditions of the St. Marys River system for extended season navigation. Final technical report [1987, 29p. + appends., eng] **44-1852**
- Weaver, R.L.**
On the development of transverse ridges on rock glaciers [1989, p.383-391, eng] **44-1900**
- Webb, P.N.**
Multiple Miocene marine productivity events in West Antarctica as recorded in Upper Miocene sediments beneath the Ross Ice Shelf (Site J-9) [1989, p.91-115, eng] **44-1941**
- Webber, C.E.**
Pre-development distribution patterns of cesium-137, uranium and companion elements in lichen heath near Baker Lake N.W.T. [1989, 42p., eng] **44-2114**
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Icy reception suits roadheader down to the ground [1989, p.19-21, eng] **44-322**
- Weber, J.R.**
Physiography and bathymetry of the Arctic Ocean seafloor [1989, p.797-828, eng] **44-988**
- Weber, L.J.**
Effect of specimen size on the bending strength of alluvium reinforced ice [1990, p.217-222, eng] **44-2226**
- Weber, W.S.**
Data on the characteristics of dated gouges on the inner shelf of the Beaufort Sea, Alaska: 1977 to 1985 [1989, 72p., eng] **44-3956**
Sediment transport by ice gouging: application of model experiments to the arctic continental shelf [1990, p.109-111, eng] **44-3830**
Suspended-matter scavenging by rising frazil ice [1990, p.97-100, eng] **44-3826**
- Wedum, E.**
Role of convective motion during dendrite growth: experiments under variable gravity (revised) [1987, 126p., eng] **44-1293**
- Weeks, W.F.**
Internal structure, composition and properties of brackish ice from the Bay of Bothnia [1990, p.5-15, eng] **44-3809**
Internal structure, composition and properties of brackish ice from the Bay of Bothnia during the BEPERS-88 experiment [1989, p.1318-1333, eng] **44-4432**
Satellite-borne remote sensing and large-scale programs for the arctic seas in the 1990s [1989, p.510-530, eng] **44-3433**
Sea Ice Properties and Processes: Proceedings of the W.F. Weeks Sea Ice Symposium [1990, 299p., eng] **44-3808**
- Wegmuller, U.**
Microwave signatures of bare soil [1989, p.307-316, eng] **44-2604**
- Wei, S.S.**
Solidification in developing pipe flows [1988, p.225-232, eng] **44-1413**
- Wei, Y.**
Fracture toughness of columnar freshwater ice from large scale DCB tests [1989, p.7-20, eng] **44-826**
Notch acuity effects on the fracture toughness of freshwater ice [1990, p.253-257, eng] **44-2232**
- Weick, E.J.**
Surface energy balance and ground heat flux in organic permafrost terrain under variable moisture conditions [1990, p.223-229, eng] **44-3666**
- Weidick, A.**
Greenland ice-margin programme, a pilot study at Pákitsoq, north-east of Jakobshavn, central West Greenland [1989, p.50-53, eng] **44-4121**
- Weinheimer, A.J.**
Nucleation on cylindrical nuclei [1987, p.599-601, eng] **44-1791**
- Weintraub, D.C.**
Ice-forming nuclei at Palmer Station, Antarctica [1989, p.266-267, eng] **44-662**
- Weisend, N.A., Jr.**
Design of an advanced pneumatic deicer for the composite rotor blade [1989, p.947-950, eng] **44-1321**
- Welch, H.E.**
Seasonal development of ice algae and its prediction from environmental factors near Resolute, N.W.T., Canada [1989, p.1793-1804, eng] **44-998**
Subice suction corer for sampling epontic ice algae [1988, p.562-568, eng] **44-1863**
- Weller, G.**
Detecting global change in the Arctic [1990, p.163-170, eng] **44-4085**
Energy budgets over various types of terrain in polar regions [1990, p.311-314, eng] **44-4216**
- Wells, S.G.**
Geologic influences on fluvial hydrology and bedload transport in small mountainous watersheds, northern New Mexico, U.S.A. [1989, p.671-690, eng] **44-3396**
- Welsch, W.**
Transit-Doppler measurements of the Filchner Ice Shelf motion in 1984 [1987, p.399-410, ger] **44-3084**
- Welsh, J.P.**
Support for an arctic camp for 10 persons for 30 days. Final report [1988, 22p., eng] **44-675**
Wind-generated polynyas off the coasts of the Bering Sea islands [1990, p.126-132, eng] **44-3835**
- Welsh, L.E.**
Revised ground snow loads for the 1990 National Building Code of Canada [1989, p.267-278, eng] **44-122**
- Wen, T.**
Acoustic reflections from cylindrical blocks of arctic ice, 1986 [1988, 108p., eng] **44-839**
Determination of elastic moduli of sea ice [1989, 6p., eng] **44-1627**
Environmental measurements in the Beaufort Sea, Spring 1988 [1989, 117p., eng] **44-535**
Propagation of sound generated on the ice surface into water [1989, 5p., eng] **44-1628**
- Wendler, G.**
Blowing snow in eastern Antarctica [1989, p.264-265, eng] **44-661**
Energy budgets over various types of terrain in polar regions [1990, p.311-314, eng] **44-4216**
Variations in antarctic sea ice [1990, p.173-177, eng] **44-3844**
- Weng, W.**
Leaky Rayleigh wave and Scholte wave at the interface between water and porous sea ice [1990, p.2481-2488, eng] **44-4276**
- Weng, X.W.**
Study of reflection and refraction of waves at the interface of water and porous sea ice [1989, 146p., eng] **44-1018**
- Werner, A.**
Holocene glaciation and climatic change Spitsbergen, Svalbard [1989, 325p., eng] **44-969**
Lichen growth rates on the northwest coast of Spitsbergen, Svalbard [1990, p.129-140, eng] **44-4046**
- Wessels, E.**
First results of ice force measurements with TIP-panels at Norströmgrund lighthouse [1989, p.1428-1439, eng] **44-4440**
- West, R.A.**
Infrared absorption features for tetrahedral ammonia ice crystals [1989, p.220-223, eng] **44-902**
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Past three million years: Evolution of climatic variability in the North Atlantic region [1988, 278p., eng] **44-10**
Record of the cold stages [1988, p.95-112, eng] **44-12**
- West, R.L.**
Effects of Prudhoe Bay reserve pit fluids on water quality and macroinvertebrates of arctic tundra ponds in Alaska [1987, 49p., eng] **44-2943**
- West, R.M.**
Breaking through the Arctic [1990, p.57-60, eng] **44-3781**
- Western Snow Conference**
Proceedings of the 57th annual meeting, Fort Collins, CO, April 18-20, 1989 [1989, 150p., eng] **44-497**
- Westwater, E.R.**
Remote sensing techniques of the wave propagation laboratory for the measurement of supercooled water: applications to aircraft icing [1989, 35p., eng] **44-595**
- Wetlands of Canada**
Wetlands of Canada [1988, 452p., eng] **44-1363**
- Wettlaufer, J.S.**
Estimating oceanic heat flux from sea-ice thickness and temperature data [1990, p.315-318, eng] **44-4217**
- Wetzel, K.**
Isotopic peculiarities of meteoric water in polar regions [1990, p.11-13, eng] **44-4141**
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Freezing and thawing durability of high strength silica fume concrete [1989, p.138-148, eng] **44-1411**
- Weyrick, P.B.**
Development of a dynamic ice breakup control method for the Connecticut River near Windsor, Vermont [1988, p.221-233, eng] **44-251**
- Whalen, S.C.**
Consumption of atmospheric methane by tundra soils [1990, p.160-162, eng] **44-4037**
Methane flux time series for tundra environments [1988, p.399-409, eng] **44-374**

- Whalley, C.**
Observations on avalanche at Rogers Pass, British Columbia, Canada, in 1989 [1989, p.37-48, jpn] 44-2633
- Whalley, E.**
Acoustic velocities and densities of polycrystalline ice Ih, II, III, V, and VI by Brillouin spectroscopy [1990, p.1909-1914, eng] 44-2752
Entropy of amorphous ice [1989, p.782-783, eng] 44-1409
Nature of the transformations of ice I and low-density amorphous ice to high-density amorphous ice [1989, p.7187-7192, eng] 44-1936
- Whalley, W.B.**
Recent glacial history and climatic change, Bergsjord, Troms-Finnmark, Norway [1989, p.19-30, eng] 44-906
- Wharton, R.A., Jr.**
Ice thickness changes on Lake Hoare, southern Victoria Land, Antarctica [1989, p.235-236, eng] 44-658
Sand/ice interactions and sediment deposition in perennially ice-covered antarctic lakes [1989, p.237-240, eng] 44-659
- Whillans, I.M.**
Analysis of data from ice streams B and C [1988, p.59-60, eng] 44-1694
Crevasse deformation and examples from Ice Stream B, Antarctica [1990, p.3-10, eng] 44-3715
- Whitaker, S.**
Improvement in arctic submarine pipeline design [1989, p.433-440, eng] 44-2746
- White, J.W.C.**
Origin of arctic precipitation under present and glacial conditions [1989, p.452-468, eng] 44-1445
- White, M.A.**
Effect of inclusions on the heat capacities of some simple molecules in adducts of Dianin's compound [1990, p.215-225, eng] 44-2780
- White, S.**
Initial cooling of pavements and the development of pavement cooling charts [1990, p.94-101, eng] 44-3001
Saskatchewan pavement cooling charts: development of a tool to control paving operations in marginal weather [1988, p.120-153, eng] 44-2838
- White, T.**
Instrumentation and pavement design [1989, p.2-8, eng] 44-1637
- Whitehouse, I.E.**
Report on a reconnaissance of the glaciers of Terra Nova Bay area [1989, p.299-319, eng] 44-3051
- Whitlow, S.**
Glaciochemical survey of the Summit region, Greenland [1990, p.186-190, eng] 44-4190
Ice-core record of atmospheric response to anthropogenic sulphate and nitrate [1990, p.554-556, eng] 44-4259
- Whittaker, R.J.**
Vegetation of the Storbreen Gletschervorfeld, Jotunheimen, Norway. III. Vegetation-environment relationships [1989, p.413-433, eng] 44-4460
- Whitworth, R.W.**
Determination of the crystal structure of ice XI [1989, p.4450-4453, eng] 44-3619
Electrical conductivity of KOH-doped ice from 70 to 250 K [1989, p.963-965, eng] 44-1087
X-ray topographic observations of edge dislocation glide on non-basal planes in ice [1989, p.281-283, eng] 44-1557
- Wiberg, C.**
Boston Glacier research natural area, 6 [1978, 16p., eng] 44-1213
- Widdis, J.**
Construction of the port of Nome, Alaska [1988, p.627-632, eng] 44-1179
- Wiegandt, H.F.**
Ice crystallization developments for the butane direct-contact process [1987, p.107-126, eng] 44-1787
- Wielbinska, D.**
Synoptic features of the severe winter 1986 at Arctowski Station, King George Island, West Antarctica [1989, p.57-71, eng] 44-702
- Wielgolaski, F.E.**
Adaptations in arctic plants [1990, p.244-245, eng] 44-4117
- Wierzbiński, T.**
Structural imperfections and interactive failure of edge loaded ice sheets [1988, p.369-380, eng] 44-1155
- Wight, J.R.**
Sagebrush rangeland hydrology and evaluation of the SPUR hydrology model [1989, p.653-666, eng] 44-1737
- Wijeweera, H.**
Post peak axial compressive strength and deformation behavior of fine-grained frozen soils [1990, p.317-325, eng] 44-3677
- Wijkstrom, C.**
Swedish Polar Bibliography, 1945-1986 87 [1988, 270p., eng] 44-782
- Wilber, A.C.**
Longwave radiation budget at the surface from satellite data development and validation [1989, p.291-294, eng] 44-4043
- Wilcox, B.P.**
Environmental conditions and processes associated with runoff from frozen soils at Reynolds Creek watershed [1990, p.125-134, eng] 44-2975
Predicting snowmelt runoff on sagebrush rangeland using a calibrated SPUR hydrology model [1989, p.1351-1357, eng] 44-1560
Sagebrush rangeland hydrology and evaluation of the SPUR hydrology model [1989, p.653-666, eng] 44-1737
- Wiles, G.C.**
Neoglaciation in the southern Kenai Mountains, Alaska [1990, p.319-322, eng] 44-4218
- Wiley, T.J.**
Thermal maturity and organic geochemistry of the Kandik basin region, east-central Alaska [1989, 41p., eng] 44-3764
- Wilkniss, P.E.**
Atmospheric radon and dust, air mass trajectories and meteorological conditions over the Greenland Sea [1973, p.74-77, eng] 44-952
- Williams, F.M.**
"Des Femmes Pour un Pôles" 1986 expedition to study the trans-polar drift [1987, 12p. + appends., eng] 44-228
Comparative model tests in ice of a Canadian Coast Guard R-class icebreaker [1989, p.1-1-18, eng] 44-3984
Comparative model tests in ice of a Canadian Coast Guard R-class icebreaker [1990, p.31-52, eng] 44-4421
Effect of ice friction on the resistance of two 1:30 scale models [1990, p.B/1-B/7, eng] 44-3466
Scientific plan for full scale trials in ice with CCGS *Sir John Franklin* [1989, 9p., eng] 44-3182
State-of-the-art review of wave propagation in floating ice sheets [1989, 20p., eng] 44-3119
- Williams, K.L.**
Determination of elastic moduli of sea ice [1989, 6p., eng] 44-1627
- Williams, M.W.**
Effects of spatial and temporal variation in snow melt on nitrate ion and sulfate ion pulses in melt waters within an alpine basin [1989, p.285-288, eng] 44-591
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Frozen earth: fundamentals of geocryology [1989, 306p., eng] 44-1355
Ice lens orientation around a chilled buried pipe [1990, p.83-87, eng] 44-3647
Ice sandwich experiments and the thermodynamic-rheological model of frost heave [1989, p.579-580, eng] 44-943
- Williams, R.G.**
Coordinated Eastern Arctic Experiment: SPRI sea-ice studies [1990, p.203-210, eng] 44-3959
- Williams, R.J.**
Association between ice nuclei and fracture interfaces in sucrose-water glasses [1989, p.103-107, eng] 44-2945
- Willis, I.C.**
Configuration of the drainage system of Mjeldalsbreen, Norway, as indicated by dye-tracing experiments [1990, p.89-101, eng] 44-3727
- Willoughby, T.C.**
Chemical composition of precipitation, dew and frost, and fog in Denver, Colorado [1989, p.83-90, eng] 44-3037
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Temperature monitoring of frozen ground during construction of Gascoigne Wood drifts, Selby Mine [1989, p.533-540, eng] 44-930
- Wilson, C.E.**
Water and sewer service connections in permafrost areas of the Northwest Territories [1989, p.188-196, eng] 44-1027
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Reconnaissance geology and exploration geochemistry of King Cove, Alaska Peninsula [1989, 23p., eng] 44-3763
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Helicopter icing - testing and certification [1982, p.66-72, eng] 44-1333
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Comparison of ship-observed sea ice conditions with NOAA AVHRR imagery in the Casey region, Antarctica [1989, p.62-79, eng] 44-3447
- Wilson, J.D.**
Low temperature starting of diesel engines using timed spark discharge [1985, 10p., eng] 44-1794
- Wilson, J.E.**
Applicability of the DMSO (dimethyl sulfoxide) aggregate degradation test to determine moisture induced distress in asphalt concrete mixes - Final report June 1986-June 1987 [1987, 99p., eng] 44-784
- Wilson, R.A.**
Development and performance of a Canadian automatic snow depth sensor [1988, p.137-144, eng] 44-243
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Soil development in the Beardmore Glacier region, Antarctica [1990, p.144-157, eng] 44-4290
- Wills, A.**
Runoff and erosion during simulated rainfall on frozen field plots with different depths of surface thaw and level of erodibility [1990, p.224-230, eng] 44-2988
- Winchester, J.W.**
Geochemistry of organic and inorganic ions of late winter arctic aerosols [1989, p.2401-2415, eng] 44-2254
Resolution of ionic components of late winter arctic aerosols [1989, p.2387-2399, eng] 44-2253
- Winkler, M.M.**
Discussion of recent work to develop a more realistic pressure-area model for ice [1990, p.231-235, eng] 44-2228
- Winter, C.J.**
Automated collection of water-quality and discharge data on streams [1989, p.122-125, eng] 44-512
- Wise, D.U.**
Using melting ice to teach radiometric dating [1990, p.38-40, 69, eng] 44-2754
- Wise, J.L.**
Oceanographic and climatological atlas of Bristol Bay. Final report [1987, 192p., eng] 44-674
- Wiskel, B.J.**
Cathodic protection for pipelines crossing the Mackenzie River [1989, p.15-19, eng] 44-1870
- Witezak, M.W.**
Variability of pavement layer moduli from NDT measurements [1989, p.346-357, eng] 44-1670
- Wofsy, S.C.**
Condensation of HNO₃ on falling ice particles: mechanism for denitrification of the polar stratosphere [1990, p.449-452, eng] 44-3426
- Wohl, G.M.**
Bering Sea data collection aboard USCGC *Polar Star*, Feb.-Mar., 1984. Vol.1. Environmental data. Draft report Mar.-Nov. 1984 [1984, 259p., eng] 44-1214
Navarin Basin and ice edge data collection aboard USCGC *Polar Star*, Vol.1. Environmental data, March-April 1985 [1986, 487p., eng] 44-1075
Navarin Basin and ice edge data collection aboard USCGC *Polar Star*, Vol.3. Field study of personnel evacuation and survival from arctic class ships, March-April 1985 [1986, 88p., eng] 44-1077
- Wojciechowski, A.**
Sedimentation in small proglacial lakes in the Hørbreen marginal zone, central Spitsbergen [1989, p.385-399, eng] 44-3059
- Wold, M.**
Arctic research program related to exploration drilling and production in the Barents Sea [1990, p.25-30, eng] 44-2203
- Wolfe, D.**
Chemical migration in snowpack [1989, p.282-286, eng] 44-4028
- Wolfe, S.A.**
Investigation into the frost susceptibility of sandy soils [1986, 52p., eng] 44-2949
Pure water salinities of coastal sediments North Head, Richards Island, N.W.T. [1990, p.51-59, eng] 44-3643
- Wollenburg, I.**
Sediment in Eurasian arctic sea ice [1990, p.102-106, eng] 44-3828
- Wolters, R.O.**
Minnesota cold regions pavement test facility [1989, p.360-369, eng] 44-1671
- Wong, T.T.**
Constitutive model for broken ice [1990, p.241-252, eng] 44-3297
Design requirement for ice forces [1989, p.524-535, eng] 44-2642
Shear box tests on broken ice [1988, p.97-107, eng] 44-1132
Stress-strain behaviour of cohesionless broken ice [1988, p.109-119, eng] 44-1133
- Woo, M.K.**
1989 observations of soil, vegetation, and microclimate, and effects on slope hydrology, Hot Weather Creek basin, Ellesmere Island, Northwest Territories [1990, p.85-93, eng] 44-4494
Consequences of climatic change for hydrology in permafrost zones [1990, p.15-20, eng] 44-3386
Effects of interbasin transfer on streamflow regimes, northwestern Ontario, Canada [1988, p.331-341, eng] 44-260
Freeze-up and break-up of ice cover on small arctic lakes [1989, p.56-62, eng] 44-141
Hydrology of small tributary streams in a subarctic wetland [1989, p.1557-1566, eng] 44-1010
Thermal and hydrological effects of slope disturbances in a continuous permafrost environment [1990, p.175-180, eng] 44-3660
- Wood, P.**
International Glaciological Society: fifty years of progress [1986, 128p., eng] 44-465
- Wood, R.G.**
Simple ice-ocean model for the Greenland Sea [1989, p.1865-1880, eng] 44-1735
- Woodbridge, R.**
Resilient properties of Arkansas subgrades. Final report [1988, 116p., eng] 44-2814
- Woodfin, R.L.**
Use of the distribution of ice thickness to select a cost-effective ice penetration [1989, p.141-149, eng] 44-3145

- Woods, S.M.**
Arctic data compilation and appraisal. Vol. 9. Beaufort Sea: biological oceanography—bacteria, plankton, epontic community 1914 to 1985 [1987, 394p., eng] **44-1459**
- Woodworth, G.J.**
Pandemonium Creek rock avalanche, British Columbia [1989, p.427-446, eng] **44-2066**
- Woodworth-Lynas, C.M.T.**
Dynamics of iceberg grounding and scouring (DIGS) experiment and repetitive mapping of the eastern Canadian continental shelf. Vol.1: The field experiment. Vol.2: Maps and charts [1988, 316p. + maps, eng] **44-225**
Pipeline route selection in an iceberg-scoured seabed [1989, p.51-67, eng] **44-681**
- Wooldridge, G.L.**
Tree morphology as an estimator of average snow depth [1989, p.232-236, eng] **44-4019**
- Wopenka, B.**
Characterization of CO₂-CH₄-H₂O fluid inclusions by microthermometry and laser Raman microprobe spectroscopy: inferences for clathrate and fluid equilibria [1987, p.1651-1664, eng] **44-2117**
- Woratschek, R.**
Artificial and natural icing tests of AH-64. Phase 2. Final report Nov.-Dec. 1986 [1987, 220p., eng] **44-1407**
- World Meteorological Organization. Working Group on Sea Ice and Climate**
Report of the second session [1987, 104p., eng] **44-1606**
- Worsfold, R.D.**
Use of satellite imagery for tracking the Kurdistan oil spill [1981, 31p., eng] **44-1909**
- Worsham, R.D.**
RADTRAN microwave surface emission models [1989, p.433-440, eng] **44-1325**
- Worthy, D.E.J.**
Surface measurements of carbon dioxide and methane at Alert during an arctic haze event in April 1986 [1989, p.383-397, eng] **44-2187**
- Wortley, C.A.**
Design and use of floating docks in lake ice conditions [1988, p.617-626, eng] **44-1178**
Docks and marinas bibliography [1988, 46p., eng] **44-1220**
Floating docks: today's choice for the Great Lakes [1987, 2p., eng] **44-1066**
How to reduce winter ice damage to marinas [1985, 2p., eng] **44-1064**
Understanding ice and its behavior in marinas: trouble and intrigue [1985, 2p., eng] **44-1065**
- Wortman, R.T.**
Statistical forecast model for Libby Basin, Montana [1989, p.100-107, eng] **44-509**
- Woytowich, C.P.**
Influence of management practices on snowmelt runoff [1990, p.120-124, eng] **44-2974**
- Wozniowski, A.**
Cathodic protection for pipelines crossing the Mackenzie River [1989, p.15-19, eng] **44-1870**
- Wright, B.D.**
Probabilistic analysis of summer impact loads on arctic offshore structures [1990, p.N-1-N-10, eng] **44-3476**
- Wright, C.W.**
Airborne discrimination between ice and water: application to the laser measurement of chlorophyll-in-water in a marginal ice zone [1989, p.67-76, eng] **44-3904**
- Wright, D.A.**
Experimental study of crystallization and crystal growth of methane hydrates from melting ice [1990, p.103-116, eng] **44-2776**
- Wright, D.L.**
Determination of the surface and bed topography in central Greenland [1990, p.17-30, eng] **44-3717**
Digital low-frequency, surface-profiling ice-radar system [1990, p.112-121, eng] **44-3730**
Use of a new high-speed digital data acquisition system in airborne ice-sounding [1989, p.561-567, eng] **44-410**
- Wright, E.A.**
U.S. Federal arctic research [1989, p.65-74, eng] **44-130**
- Wright, W.B.**
Two-dimensional simulation of electrothermal deicing of aircraft components [1989, p.554-562, eng] **44-41**
- Wu, M.**
Mechanics of damage in rate-sensitive construction materials. Technical report Jan.-Dec. 87 [1987, 120p., eng] **44-719**
- Wu, M.S.**
Crack nucleation in polycrystalline ice—a comparison of two nucleation criteria [1990, p.273-282, eng] **44-2235**
Crack nucleation due to elastic anisotropy in polycrystalline ice [1990, p.29-47, eng] **44-3538**
- Wu, X.H.**
Preliminary study on existing snowline timber line and their relations in southeastern part of the Qinghai-Xizang Plateau [1989, p.114-124, chi] **44-2406**
- Wubben, E.A.**
Production and storage of ice for cooling buildings [1989, p.338-344, eng] **44-1525**
- Wuori, A.F.**
Improving snow roads and airstrips in Antarctica [1989, 18p., eng] **44-1**
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Construction of fully instrumented test pavements in North Carolina [1989, p.394-401, eng] **44-1675**
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Ecological aspects of antarctic microbiology [1990, p.71-146, eng] **44-3253**
- Wyseure, G.**
Estimation of melt rate in seasonally snow-covered mountainous areas [1989, p.249-263, eng] **44-1682**
- Xian, X.**
Experimental evaluation of the tensile strength of impact ice [1989, p.1205-1208, eng] **44-1512**
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Sound generated by propagating cracks in sea ice [1989, p.1489-1500, eng] **44-136**
- Xie, Z.**
Studies on the BHQ ice core from the Law Dome, Antarctica [1990, p.20-26, eng] **44-4550**
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Characteristics of the present glaciers on the northern slope of Mt. Qiaogeli [1989, p.125-136, chi] **44-2407**
Ice formations of glaciers in China [1989, p.55-68, chi] **44-3884**
Mass balance of glaciers in China [1989, p.69-77, chi] **44-3885**
Recent change and trend prediction of glaciers in the Qilian Mountains [1989, p.145-149, eng] **44-290**
- Xin, W.**
150 MHz coherent radar system [1989, p.42-47, eng] **44-3358**
- Xu, H.B.**
Two-dimensional numerical hailcloud model [1989, p.200-211, eng] **44-529**
- Xu, J.Z.**
Improving the design of ice-resistant platforms in the Bohai Gulf [1988, p.345-349, eng] **44-1152**
- Xu, X.**
Late Quaternary climate changes in eastern China [1989, p.10-19, chi] **44-646**
- Xu, X.Z.**
Field observations of water intake flow in unsaturated freezing soils with different groundwater tables [1989, p.137-147, chi] **44-2408**
- Yager, T.J.**
Aircraft and ground vehicle friction correlation test results obtained under winter runway conditions during joint FAA/NASA runway friction program [1988, 28p., eng] **44-1078**
- Yagi, K.**
Study on snow melting methods in Hokkaido [1989, p.177-182, jpn] **44-2876**
- Yagi, T.**
Doppler radar observation of orographic modification of snow clouds—a case of enhanced snowfall [1990, p.1-16, jpn] **44-3310**
Radar observations of snowfalls in 1985 over the Shinjo basin: vertical scanning [1987, p.121-130, eng] **44-1748**
- Yahagi, H.**
How deep is the ground frozen [1989, p.38-43, jpn] **44-2860**
- Yakovlev, A.P.**
Effect of low temperatures on the damping properties of polymer coatings of glue composites "Sprut" [1990, p.681-684, eng] **44-3900**
- Yakovlev, G.P.**
Effect of residual stress on the cold-resistance and endurance of welded joints [1990, p.891-896, eng] **44-3876**
- Yamada, M.**
Freezing characteristics of ethylene glycol solution [1989, p.303-309, eng] **44-1204**
Thermal conductivity of a dendritic ice layer [1989, p.269-278, eng] **44-263**
Vertical ice forces on pile structures due to changes in water level [1985, p.150-155, jpn] **44-2307**
- Yamada, R.**
Report of the low cost road-heating system by city gas [1989, p.183-188, jpn] **44-2877**
Research and development for gas road snow melting system: a field test in Sapporo City [1988, p.399-404, jpn] **44-2710**
- Yamada, T.**
Climatological study on heavy snowfall in Hokkaido, Pt.2 [1988, p.185-189, jpn] **44-2682**
Deformation of concrete U-trough caused by ground freezing [1986, p.471-476, jpn] **44-2487**
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Dividing of snow-depositional environments by snow characteristics in plain areas along the Japan Sea coast [1988, p.15-24, jpn] **44-728**
Estimation of the distribution and total amount of water equivalent of snow on the running area of mudflow generated by the volcanic eruption of Mt. Tokachi, Hokkaido on 24 May, 1926 [1989, p.41-49, jpn] **44-3125**
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- Regional characteristics of snow damage in Japan [1988, p.57-72, jpn] 44-732**
- Some measuring methods of snowfall rate for radar snow gauge [1986, p.92-97, jpn] 44-2450**
- Survey of the perennial "Yukikabe Snowpatch" in Daisetsu Mountains [1989] [1989, p.65-70, jpn] 44-3044**
- Yamaguchi, M.**
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- Yamaguchi, S.**
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- Yamaguchi, Y.**
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- Yamamoto, A.**
Meteorological observations at Syowa Station in 1987 by the 28th Japanese Antarctic Research Expedition [1990, p.15-45, jpn] **44-3740**
- Yamamoto, H.**
Experimental study of uniaxial compressive strength of frozen sand [1980, p.79-88, jpn] **44-3086**
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Laboratory experiment on increment of earth pressure accompanying frost heaving. Part 2. The case of consolidated soil [1988, 2p., jpn] **44-3220**
Laboratory study on mechanical behavior of circular cylinder of thick frozen soils under outer pressure [1989, 2p., jpn] **44-3221**
Local ice segregation and water migration in frozen soil under constant temperature gradient [1983, p.735-738, jpn] **44-3093**
- Yamamoto, M.**
Development of guard fence used in snowy area [1986, p.295-300, jpn] **44-2472**
Ellipsometric study of the transition layer on the surface of an ice crystal [1987, p.665-677, eng] **44-3188**
- Yamamoto, S.**
Snow melting system using a spring water in underground space [1986, p.606-610, jpn] **44-2506**
- Yamamoto, T.**
"Himuro project" insulation and utilization of solar radiation onto the snow/ice shed [1988, p.546-549, jpn] **44-2725**
Propagator matrix for acoustic wave propagation through anisotropic porous media [1986, p.463-472, eng] **44-1745**
- Yamamoto, O.**
Dielectric study on pure and KOH-doped tetrahydrofuran clathrate hydrates [1990, p.33-44, eng] **44-2773**
Heat capacity and glass transition of ethylene oxide clathrate hydrate [1990, p.45-58, eng] **44-2774**
- Yamane, T.**
Study of flood control-type snow removal gutters [1987, p.242-247, jpn] **44-2539**
- Yamanouchi, T.**
Automatic weather and snow observation on Antarctica [1989, p.547-550, jpn] **44-2913**
Detection of clouds in Antarctica from infrared multispectral data of AVHRR [1987, p.949-962, eng] **44-1304**
- Yamashita, H.**
Heat transfer from a tube immersed in a fluidized bed with frosting [1990, p.73-91, eng] **44-4470**
- Yamashita, K.**
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Abrasion of heavy duty anti-corrosion steel pile due to movement of sea ice [1987, p.353-359, jpn] **44-2551**
Estimation of permeability coefficient of sea ice [1986, p.142-147, jpn] **44-2455**
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Testing methods for adfreeze bond strength between ice and various materials [1988, p.206-313, jpn] **44-2698**
- Yamazaki, A.**
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- Yamazaki, K.**
Ice forces acting on water intake towers [1989, p.421-431, jpn] **44-2909**
- Yamazaki, T.**
Prediction model for snowmelt, snow surface temperature and freezing depth using a heat balance method [1990, p.375-384, eng] **44-3874**
- Yan, D.C.**
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- Yanagimoto, S.**
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- Yanagisawa, E.**
Frost depths of roads in Tohoku area [1989, p.35-39, jpn] 44-3438
- Yang, D.Q.**
General aspect of correction of errors in precipitation measurements abroad [1989, p.177-183, chi] 44-2413
- Yang, M.D.**
Volumetric freezing multiple phase transformation processes [1987, p.139-153, eng] 44-1788
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Forecasting Bering Sea ice edge behavior [1990, p.775-788, eng] 44-2136
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- Yang, Z.N.**
Analysis and estimation of runoff in the Binggou Basin of the Qilian Mountains [1989, p.39-44, eng] 44-170
Analysis of the water balance and water resources in the mountainous Heihe River basin [1989, p.53-59, eng] 44-172
Runoff from glacier melting water in China and its nourishment to rivers [1989, p.187-204, chi] 44-3891
- Yano, S.**
Indentation tests of laboratory and field ice sheets [1986, p.154-159, jpn] 44-2457
- Yao, T.**
Model of sea ice and the upper ocean mixed layer off Labrador [1990, p.11,603-11,612, eng] 44-4235
- Yao, T.D.**
Climatic record from an ice margin area in East Antarctica [1990, p.323-327, eng] 44-4219
- Yao, Y.J.**
Frost depths of roads in Tohoku area [1989, p.35-39, jpn] 44-3438
- Yapa, P.D.**
Simulation of oil slick transport in Great Lakes connecting channels: theory and model formulation [1990, 29p., eng] 44-3736
- Yasuda, K.**
Formation process of snow drifts around porous-plate-type snow fences [1986, p.301-306, jpn] 44-2473
- Yasuda, M.**
Effects of salinity on strength and creep behavior of artificially frozen soils [1983, 27p., jpn] 44-3092
- Yasui, M.**
Risk probability map of wet snow accretion on power line [1989, p.87-94, jpn] 44-2861
- Yatsko, C.P.**
Recent discoveries of snow algae in upstate New York and Quebec Province and preliminary reports on related snow chemistry [1989, p.196-200, eng] 44-4012
- Yeend, W.**
Significant metalliferous lode deposits and placer districts of Alaska [1987, 104p. + appends., eng] 44-533
- Yeh, Y.**
Antifreeze glycoproteins: physical, chemical, and functional properties [1989, p.215-217, eng] 44-33
Antifreeze glycoproteins: structure-function studies [1988, p.136-138, eng] 44-1906
Investigation of growth instabilities of the ice-water interface by light scattering spectroscopy. Final report 1 Sep. 1979-30 Sep. 1982 [1982, 45p., eng] 44-1228
Investigation of growth instabilities of the ice-water interface by light scattering spectroscopy [1982, 45p., eng] 44-1274
- Yen, Y.C.**
Approximate solutions of heat conduction in snow with linear variation of thermal conductivity [1989, p.21-32, eng] 44-827
Friction loss through a uniform snow layer [1990, p.83-90, eng] 44-3542
- Yeshchenko, A.I.**
Generation and evolution of a water-condensate aerosol and prevention of icing of the air-intake lines of stationary gas turbines [1988, p.21-28, eng] 44-4272
- Yevjevich, V.**
Modeling snowfall-to-snowmelt delay [1989, p.203-211, eng] 44-2192
- Yew, T.H.**
Leaky Rayleigh wave and Scholte wave at the interface between water and porous sea ice [1990, p.2481-2488, eng] 44-4276
- Yi, C.L.**
Preliminary research of geomorphological and depositional features of Pleistocene glaciations in the east slope of Xiaoxingling Mountain in the southwest of Sichuan Province [1989, p.76-81, chi] 44-653
- Yin, J.H.**
Elastic visco-plastic modelling of a frozen sand using equivalent time [1990, p.133-139, eng] 44-3799
- Yin, X.C.**
Analysis of evaporation coefficient from ice surfaces during the freezing season in northern China [1989, p.29-36, eng] 44-169
- Yokomichi, H.**
High speed snow search radar system [1988, p.142-146, jpn] 44-2674
- Yokoyama, E.**
Pattern formation in growth of snow crystals occurring in the surface kinetic process and the diffusion process [1990, p.2038-2049, eng] 44-3623
- Yokoyama, F.**
Morphology of optically anisotropic agarose hydrogel prepared by directional freezing [1990, p.552-558, eng] 44-4498
- Yoneyama, K.**
Thermal conductivity of frozen soils [1981, p.109-112, jpn] 44-3089
- Yonezawa, J.**
Electron spin resonance imaging study of spatial distribution of paramagnetic species produced by gamma-irradiation in sulfuric acid ices [1989, p.1657-1660, eng] 44-1677
- Yong, R.N.**
Iterative method for solution of interaction problems between a rigid tire and a supporting snowpack [1987, p.1-10, eng] 44-1226
- Yoon, S.C.**
Observational study of the Northern Hemisphere wintertime circulation associated with the cold winter and the warm winter of Korea, part 2: transient eddies [1988, p.1-21, eng] 44-1449
- Yoshida, A.**
Abrasion of concrete structures due to a movement of sea ice sheet [1988, p.297-305, jpn] 44-2697
Design of a concrete structure in icy waters [1987, p.311-317, jpn] 44-2544
Design of an observation tower in the Sea of Okhotsk [1986, p.178-184, jpn] 44-2461
Sea ice-concrete abrasion test [1986, p.564-571, jpn] 44-2500
- Yoshida, K.**
On the stress measurement of the snow-shelter [1986, p.313-318, jpn] 44-2475
- Yoshida, M.**
Introduction of Mitsubishi snow to ice converter [1988, p.530-535, jpn] 44-2722
Study of the material for snow-drain's cover [1988, p.425-430, jpn] 44-2714
- Yoshida, Y.**
Science in Antarctica, Vol.5: Earth sciences [1986, 427p., jpn] 44-211
Some observations of sea ice in the vicinity of Lützow-Holm Bay, Antarctica [1990, p.8-14, eng] 44-3739
Vertical distributions of the concentration of submicron aerosol particles near the ground surface [1987, p.963-971, eng] 44-1305
- Yoshida, Z.**
Studies of the behavior of a snow cover on mountain slope: 24. Function of low fence against avalanche release [1988, p.45-56, jpn] 44-731
- Yoshimura, J.**
Study on frost prevention in road tunnels—simplified design method for determining thickness of insulator [1989, p.603-608, jpn] 44-2921
- Yoshino, F.**
Radar observation of snowfall [1986, p.55-60, jpn] 44-2446
- Young, C.J.**
Artificial and natural icing tests of the EH-60A Quick Fix helicopter. Final report 24 Feb.-20 Mar. 1988 [1988, 86p., eng] 44-1060
Artificial and natural icing tests of the UH-60A helicopter configured with the XM-139 multiple mine dispensing system (VOLCANO). Final report 10 Jan.-22 Feb. 88 [1988, 56p., eng] 44-841
- Young, G.J.**
Hydrological investigations at Biafo Glacier, Karakoram range, Himalaya: an important source of water for the Indus River [1989, p.103-108, eng] 44-556
Ice loss in the ablation area of a Himalayan glacier: studies on Miar Glacier, Karakoram Mountains, Pakistan [1989, p.289-293, eng] 44-592
- Young, J.C.O.**
Influences of ice slurry characteristics [1989, p.340-351, eng] 44-2003
- Young, K.L.**
1989 observations of soil, vegetation, and microclimate, and effects on slope hydrology, Hot Weather Creek basin, Ellesmere Island, Northwest Territories [1990, p.85-93, eng] 44-4494
Thermal and hydrological effects of slope disturbances in a continuous permafrost environment [1990, p.175-180, eng] 44-3660
- Young, O.R.**
Age of the Arctic: hot conflicts and cold realities [1989, 316p., eng] 44-1888
Arctic in world affairs [1989, 33p., eng] 44-1287
Global commons: the arctic in world affairs [1990, p.52-61, eng] 44-2955
Global commons—the Arctic in world affairs [1990, p.52-61, eng] 44-3111
Past as prologue: a history of arctic studies at Dartmouth College [1989, p.13-29, eng] 44-3290
- Young, R.A.**
Modeling the effects of soil frost and snowmelt on runoff and erosion [1990, p.99-107, eng] 44-2971
Runoff and erosion during simulated rainfall on frozen field plots with different depths of surface thaw and level of erodibility [1990, p.224-230, eng] 44-2988
- Young, T.C.**
Analysis of control sites: limnology and glaciology. Final report [1979, 160p., eng] 44-2742
- Youssef, H.**
Behavior of frozen and unfrozen sands in triaxial testing [1988, p.57-64, eng] 44-912
Compressibility of sand-ice system [1988, p.497-506, eng] 44-1167
- Yu, C.S.**
Flow simulation in the Weddell Sea [1989, 69p., eng] 44-1351
- Yu, Y.H.**
Plane strain fracture toughness K(1C) of sea ice [1989, p.338-342, chi] 44-1240
- Yuan, X.H.**
Ground temperature method—the method for calculating the depth of permafrost table [1989, p.239-248, chi] 44-2419
- Yue, H.S.**
Characteristics of seasonally frozen ground and division of frost heaving in the region of Yumenzhen [1989, p.372-382, chi] 44-3614
- Yue, Q.J.**
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- Yukumi, M.**
Blowing-snow numerical simulation [1987, p.411-416, jpn] 44-2554
Numerical simulation of snowdrift development [1989, p.265-268, eng] 44-587
- Yumita, S.**
On auto drain system for water-piping [1988, p.99-103, jpn] 44-2669
- Yungel, J.K.**
Airborne discrimination between ice and water: application to the laser measurement of chlorophyll-in-water in a marginal ice zone [1989, p.67-76, eng] 44-3904
- Yunker, M.**
Arctic data compilation and appraisal. Vol.16. Queen Elizabeth Islands: chemical oceanography 1952 through 1985 [1986, 125p., eng] 44-1462
- Zabalueva, E.V.**
Structural inhomogeneities of the Martian cryolithosphere [1989, p.121-133, eng] 44-1679
- Zabilansky, L.J.**
Salmon River ice jam control studies: interim report [1990, 8p., eng] 44-3754
- Zabolotnik, S.I.**
Dynamics of permafrost under natural conditions and during destruction of ground covers in the Zeya region [1990, p.157-167, rus] 44-4315
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- Zachara, M.**
Hardening under freezing conditions and frost resistance of concrete made from sintered aluminous cements [1985, p.172-181, eng] 44-1982
- Zadvornev, G.A.**
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- Zagorodnov, V.S.**
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Temperature regime of the Akademiya Nauk Glacier, Severnaya Zemlya [1989, p.134-138, rus] 44-348
- Zahn, P.B.**
Arctic marine transportation program, 1979 to 1986. Technical summary [1988, Var.p., eng] 44-3407
Bering Sea winter ice edge data collection aboard USCGC Polar Sea. Vol.1. Environmental data. Final report Apr.-Nov. 86 [1987, 275p., eng] 44-881
Evacuation and survival from offshore drilling and production units in the Bering, Chukchi, and Beaufort seas. Final report, Aug. 1984-Oct. 1985 [1987, var.p., eng] 44-3331
Towed resistance trials in ice of the USCGC Mobile Bay (WTGB 103). Final report Jan.-Sep. 1986 [1987, 463p., eng] 44-1630
- Zaitsev, I.U.V.**
Principal directions of ice study for oil fields development in ice infested waters [1983, 12p., eng] 44-190
- Zaitsev, V.N.**
Rock streams in bald-peak mountain belts [1989, 148p., rus] 44-2403

- Zaitsev, V.S.**
Methods and instruments for measuring the thermophysical properties of (frozen) soil [1986, p.165-169, eng] 44-1728
- Zakharov, I.U.F.**
Basic trends of complex environmental protection during gas industry development in West Siberia [1989, p.17-26, rus] 44-4508
Effect of industrial disturbances of geocryological conditions on the reliability of main gas pipelines [1990, p.38-42, rus] 44-4297
- Zakharov, S.D.**
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- Zakharova, O.K.**
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- Zakrevskaia, O.V.**
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- Zakrzewski, W.P.**
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- Zale, R.**
Lake sediment cores from the Antarctic Peninsula and surrounding islands [1989, p.211-220, eng] 44-2623
- Zalikhanov, M.Ch.**
Optical method of determining snow moisture [1989, p.29-33, rus] 44-1780
- Zallen, R.M.**
Roof collapse under snowdrift loading and snowdrift design criteria [1988, p.80-98, eng] 44-2512
- Zaman, K.B.M.Q.**
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- Zamora, M.**
Glacier fluctuations and climate in the Cordillera Blanca, Peru [1990, p.136-140, eng] 44-4179
- Zanon, G.**
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Variations of Italian glaciers, 1985-1986 [1987, p.229-276, ita] 44-2097
- Zarling, J.P.**
Cold regions engineering research - strategic plan [1989, p.172-190, eng] 44-1761
Design and performance experience of foundations stabilized with thermosyphons [1990, p.365-370, eng] 44-3683
Thermal stabilization of permafrost with thermosyphons [1990, p.323-328, eng] 44-2242
- Zarmi, Y.**
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- Zavarin, E.R.**
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- Zavizion, V.G.**
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- Zavodovskii, A.G.**
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- Satellite snow cover monitoring in the Qilian Mt. and the characteristics of spring runoff in Hexi region [1988, p.40-48, chi] 44-634**
- Zeng, Z.Y.**
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- Zent, A.P.**
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- Zhakamikhov, Kh.M.**
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- Zhang, H.**
Microwave brightness temperatures of the Greenland Ice Sheet [1989, p.277-287, eng] 44-2601
- Zhang, J.H.**
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Freezing-thawing test of rock samples from Dunhuang Cave historical remains in northwest China [1988, p.223-230, jpn] 44-742
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- Zhang, M.Y.**
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- Zhang, Q.**
Comparison of periglacial landforms on the Vestfold Hills, East Antarctica, and on the Fildes Peninsula, West Antarctica [1990, p.1-9, chi] 44-4548
Computational study of formation dynamics and structure of amorphous ice condensates [1990, p.5004-5016, eng] 44-3275
- Zhang, R.**
Mass-dimensional relationships for ice particles and the influence of riming on snowfall rates [1990, p.153-163, eng] 44-3419
- Zhang, S.Y.**
Forecasting snowmelt runoff using NOAA/TIROS satellite data for the Huanghe River and the Heihe River [1988, p.75-84, chi] 44-638
Satellite monitoring of snow cover in the Qilian Mountains and analysis of snowmelt runoff in the Hexi Region [1988, p.52-66, eng] 44-266
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- Zhang, T.**
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- Zhang, T.J.**
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- Zhang, Z.**
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- Zhao, J.**
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- Zhao, S.X.**
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Experimental study of ice crystallization in water drops and on surfaces [1989, 104p., eng] 44-1021
- Zhao, Y.**
Differential reflectivity radar hail measurement technique: observations during the Denver hailstorm of 13 June 1984 [1990, p.104-113, eng] 44-3285
- Zhekamukhov, M.K.**
Calculating radar reflectivity of hail clouds in their maximum development stage [1989, p.44-53, rus] 44-811
- Zhelezniak, I.I.**
Fundamentals of the theory of designing communication cables for frost shattering of ground [1990, p.5-9, rus] 44-4292
Thermal and moisture regime of seasonally freezing soils in central and eastern Transbaikalia [1985, p.48-50, rus] 44-2371
- Zheng, Z.G.**
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- Zherdev, V.N.**
Physiographic characteristics of snowmelt and its initial phases in the central chernozem regions [1984, p.74-78, rus] 44-2790
- Zhidkov, V.A.**
Buffering effect of snow cover to the impact of vehicles on the soil and vegetation cover in the North [1989, p.131-141, eng] 44-2441
Evaluating avalanche hazards in an arctic central middle-range mountain region (in the example of Spitsbergen) [1989, p.188-200, rus] 44-1589
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Statistical structure of the snow-reserve fields on various surfaces in the polar regions [1989, p.118-124, rus] 44-345
- Zhigalova, O.P.**
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- Zhigul'skii, A.A.**
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- Zhmur-Klimenko, V.T.**
Low-temperature cyclic fracture resistance and its use for low-temperature strengthening of materials [1990, p.176-181, rus] 44-4376
- Zhou, B.G.**
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- Zhou, H.P.**
Backcalculation of layer moduli and runway surface design - U.S. Coast Guard Air Station, Kodiak, Alaska [1989, p.334-345, eng] 44-1669
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Comparison between remotely-sensed and surface-measured snow water equivalent data. Schmidlin, T.W., (1989, p.208-212, eng) **44-4014**
Aircraft studies of polar stratospheric clouds in the Arctic in 1988. Dosov, V.N., et al. (1990, p.226-229, eng) **44-4093**
National Weather Service gamma snow system physics and calibration. Fritzsche, A.E., (1982, 37p., eng) **44-4260**
Development of an airborne sea ice thickness measurement system and field test results. Kovacs, A., et al. (1989, 47p., eng) **44-4265**
See *also*: Infrared reconnaissance; Spaceborne photography
- Aerodynamic test facilities**
See *also*: Wind tunnels
- Aerosols**
Ice accretion on a spherical hailstone model. Okudzhava, A.M., et al. (1988, p.136-139, rus) **44-469**
On the satellite retrieval of aerosol optical thickness over polar regions. Kergomard, C., et al. (1989, p.707-710, eng) **44-276**
Determination of regional sources of aerosol black carbon in the Arctic. Kahi, J.D., et al. (1989, p.327-330, eng) **44-388**
Empirical functions for atmospheric aerosol size distribution. Ram, M., et al. (1989, p.351-353, eng) **44-455**
Ice-forming nuclei at Palmer Station, Antarctica. Saxena, V.K., et al. (1989, p.266-267, eng) **44-662**
Studies of giant and super-giant aerosol particles. Berezinskii, N.A., et al. (1989, p.108-115, rus) **44-874**
Middle Martian atmosphere. Jaquin, R.F., (1989, 135p., eng) **44-962**
Vertical distribution of aerosol particles near the ground surface. Kikuchi, K., et al. (1987, p.963-971, eng) **44-1305**
Sea ice deformation as a source of surface air aerosol. Nagurny, A.F., (1989, p.582-584, rus) **44-1374**
Measurements and analyses of aerosol particles in arctic Canada. Taniguchi, T., et al. (1989, p.397-414, eng) **44-1623**
Biogenic particles in antarctic ice cores and the source of antarctic dust. Burckle, L.H., et al. (1988, p.71-72, eng) **44-1701**
Snow chemistry at Showa Station. Kanamori, S., et al. (1989, p.79-87, eng) **44-1804**
Aerosol light absorption by soot in remote environments. Clarke, A.D., (1989, p.161-171, eng) **44-1950**
Carbon dioxide and methane in the arctic atmosphere. Conway, T.J., et al. (1989, p.81-99, eng) **44-2169**
Anthropogenic aerosols and gases in the lower troposphere at Alert, Canada in April 1986. Barrie, L.A., et al. (1989, p.101-127, eng) **44-2170**
Studies of ice nucleation by arctic aerosol on AGASP-II. Borys, R.D., (1989, p.169-185, eng) **44-2174**
Airborne and lidar measurements of tropospheric aerosol over Alert, Canada. Leaitch, W.R., et al. (1989, p.187-211, eng) **44-2175**
Surface aerosol measurements at Barrow during AGASP-II. Bodhaine, B.A., et al. (1989, p.213-224, eng) **44-2176**
Arctic haze effects determined from radiometry. Valero, F.P.J., et al. (1989, p.225-244, eng) **44-2177**
In-situ measurements of physical and chemical properties of arctic haze. Clarke, A.D., (1989, p.255-266, eng) **44-2179**
Electron microscope studies of aerosol particles collected during AGASP-II. Sheridan, P.J., (1989, p.267-282, eng) **44-2180**
Correlation among combustion effluent species at Barrow, AK. Hansen, A.D.A., et al. (1989, p.283-299, eng) **44-2181**
Concentrations of atmospheric constituents observed at Alert, Canada. Chung, Y.S., (1989, p.317-330, eng) **44-2183**
Sulfur dioxide in the North American Arctic. Thornton, D.C., et al. (1989, p.331-346, eng) **44-2184**
Aerosol black carbon measurements in the arctic haze during AGASP-II. Hansen, A.D.A., et al. (1989, p.347-361, eng) **44-2185**
Elemental composition of particulate material sampled from the arctic haze aerosol. Sheridan, P.J., et al. (1989, p.363-381, eng) **44-2186**
Measurements of carbon dioxide at Alert during an arctic haze event. Trivett, N.B.A., et al. (1989, p.383-397, eng) **44-2187**
- Rate of ice nucleation by atmospheric ice-forming nuclei. Berezinskii, N.A., et al. (1989, p.5-8, rus) **44-2196**
Dispersiveness and ice-forming properties of aerosols in cumulus clouds. Berezinskii, N.A., et al. (1989, p.35-45, rus) **44-2197**
Aerosol transfer, transformation of its microstructure, and ice-forming features. Berezinskii, N.A., et al. (1989, p.45-52, rus) **44-2198**
Proceedings. (1989, 285p., eng) **44-2249**
Arctic air pollution: a Norwegian perspective. Ottar, B., (1989, p.2349-2356, eng) **44-2250**
Barrow surface aerosol: 1976-1986. Bodhaine, B.A., (1989, p.2357-2369, eng) **44-2251**
Characterization of particles collected by aerial survey over Alaska. Sheridan, P.J., (1989, p.2371-2386, eng) **44-2252**
Resolution of ionic components of late winter arctic aerosols. Li, S.M., et al. (1989, p.2387-2399, eng) **44-2253**
Ionic geochemistry of late winter arctic aerosols. Li, S.M., et al. (1989, p.2401-2415, eng) **44-2254**
Measurements of hazes in polar airmasses. Radke, L.F., et al. (1989, p.2417-2430, eng) **44-2255**
Air pollution properties at Norwegian Arctic stations. Iversen, T., (1989, p.2451-2462, eng) **44-2258**
Major ions and scavenging of sulphate in the Norwegian Arctic. Joranger, E., et al. (1989, p.2463-2469, eng) **44-2259**
Light hydrocarbons in the Norwegian Arctic. Hov, O., et al. (1989, p.2471-2482, eng) **44-2260**
Seasonal variations in Greenland Ice Sheet pollutants. Davidson, C.I., et al. (1989, p.2483-2493, eng) **44-2261**
Absence of eruptive particles in arctic aerosols. Sievering, H., et al. (1989, p.2495-2499, eng) **44-2262**
Lead isotope ratios in arctic aerosols. Sturges, W.T., et al. (1989, p.2513-2519, eng) **44-2265**
Atmospheric transport during AGASP-II. Herbert, G.A., et al. (1989, p.2521-2535, eng) **44-2266**
Major haze event near Point Barrow, Alaska. Bridgman, H.A., et al. (1989, p.2537-2549, eng) **44-2267**
Trace element features of atmospheric aerosol in the Norwegian Arctic. Maenhaut, W., et al. (1989, p.2551-2569, eng) **44-2268**
Transport of pollution aerosol from Asia and the Arctic to Japan. Rahn, K.A., et al. (1989, p.2597-2607, eng) **44-2270**
Toward estimation of climatic effects due to arctic aerosols. Blanchet, J.P., (1989, p.2609-2625, eng) **44-2271**
Ice-forming activity of ultrasmall silver iodide particles. Gorbunov, B.Z., et al. (1989, p.571-574, rus) **44-2569**
Formation of ice crystals on a nonuniform surface. Gorbunov, B.Z., et al. (1989, p.848-853, rus) **44-2570**
Long-term climatic and environmental records from antarctic ice. Lorius, C., et al. (1989, p.11-16, eng) **44-2781**
Heterogeneous ice nucleation on small particles. Efimov, I.U.A., et al. (1989, p.1039-1041, eng) **44-2785**
Influence of atmospheric carbon on snow cover albedo in Poland. Sztaylor, A., (1989, p.1193-1196, eng) **44-2786**
Heterogeneous nucleation of ice at the liquid-liquid interface. Rosinski, J., et al. (1990, p.87-96, eng) **44-2787**
Effect of aerosols on pH of snow. Kumai, M., (1990, p.17-30, eng) **44-2925**
Chemical composition of precipitation, dew and frost, and fog in Denver, Colorado. Schroder, L.J., et al. (1989, p.83-90, eng) **44-3037**
Role of adsorbed films on metal oxide surface in heterogeneous nucleation. Gorbunov, B.Z., et al. (1989, p.198-202, eng) **44-3260**
Ice formation from supercooled water on metal oxides. Gorbunov, B.Z., et al. (1989, p.202-206, eng) **44-3261**
Ice-forming activity of ultrasmall particles on silver iodide. Gorbunov, B.Z., et al. (1989, p.495-498, eng) **44-3348**
Aerosol nucleation in the winter arctic and antarctic stratospheres. Hamill, P., et al. (1990, p.417-420, eng) **44-3423**
Anthropogenic aerosols in a haze and snow coupled model. Blanchet, J.P., et al. (1984, p.269-272, eng) **44-3433**
Comparison of theory and experiment in formation of ice crystals on a nonuniform surface. Gorbunov, B.Z., et al. (1990, p.733-738, eng) **44-3597**
Application of aerosol physics to snow research. Hogan, A.W., (1989, p.201-207, eng) **44-4013**
Atmospheric aerosol, trace gases and atmospheric transparency in the Arctic. Barteneva, O.D., et al. (1990, p.203-212, eng) **44-4090**
Redistribution of aerosol particles through scavenging by ice particles. Alheit, R.R., et al. (1990, p.270-275, eng) **44-4138**
Scavenging of aerosol particles by snow flakes. Mitra, S.K., et al. (1990, p.1247-1254, eng) **44-4478**
See *also*: Particles; Smoke generators
- Afforestation**
See *also*: Forestry; Vegetation
- Africa**
—Kenya, Mount
Ice flow and mass changes in Lewis Glacier, East Africa. Hastenrath, S., (1989, p.325-332, eng) **44-1893**

Africa (cont.)

—Lewis Glacier

- Ice flow and mass changes in Lewis Glacier, East Africa.
Hastenrath, S., [1989, p.325-332, eng] 44-1893

Age determination

- Spruce annual rings and glacier oscillation, Terskei Ala-Tau. Solomina, O.N., et al, [1989, p.103-110, rus] 44-343

- Periglacial processes on the Qinghai-Xizang Plateau.
Wang, S.L., [1989, p.69-75, chi] 44-652

- Holocene glaciation and climatic change Spitsbergen, Svalbard. Werner, A., [1989, 325p., eng] 44-969

- River breakthrough and geomorphic changes in a permafrost environment. Mackay, J.R., et al, [1989, p.171-184, eng] 44-2620

- Lichen growth rates for the northwest coast of Spitsbergen, Svalbard. Werner, A., [1990, p.129-140, eng] 44-4046

- Last interglacial/glacial cycle on Svalbard, as seen from the Kapp Ekholm section. Mangerud, J., et al, [1990, p.63-66, eng] 44-4108

- Vegetation of the Storbreen glacier foreland, Norway. Whittaker, R.J., [1989, p.413-433, eng] 44-4460

- Origin and age of the "ice complex" in northern Western Siberia. Danilov, I.D., et al, [1990, p.72-77, rus] 44-4541

- See *also*: Geochronology; Ice dating; Permafrost dating; Radioactive age determination; Soil dating

Aggregates

- Determining moisture induced distress in asphalt concrete mixes. Heinicke, J.J., et al, [1987, 99p., eng] 44-784

- Aggregation of crystals in spatially homogeneous clouds. Gaeva, Z.S., [1989, p.72-75, rus] 44-869

- Fines produced from aggregates in roadway construction. Vinson, T.S., et al, [1986, 74p., eng] 44-1247

- Low temperature characteristics of engineered asphalts. Anderson, K.O., et al, [1988, p.292-310, eng] 44-2843

- Structural study of H₂O clusters. Torchet, G., et al, [1989, p.245-260, eng] 44-3699

- See *also*: Concrete aggregates; Soil aggregates

Agriculture

- Agricultural use of melt water in Hopar settlement, Pakistan. Butz, D., [1989, p.35-39, eng] 44-545

- Physical characteristics of hail and damage to agricultural crops. Tlisov, M.I., et al, [1989, p.137-145, rus] 44-821

- Calibrated L-band terrain measurements and analysis program. Larson, R.W., et al, [1987, 106p., eng] 44-1233

- Oases of the North. Fominykh, L.A., et al, [1988, 170p., rus] 44-1876

- Frozen soil impacts on agricultural, range, and forest lands. Saxton, K.E., et al, [1990, p.1-3, eng] 44-2959

- Tundra re-cultivation. Archegova, I.B., et al, [1989, p.139-143, rus] 44-4526

Air bubbles

- See *also*: Bubbles

Air bubbling systems

- See *also*: Bubbling

Air circulation

- See *also*: Atmospheric circulation

Air conditioning

- Technical and symposium papers. [1989, 1349p., eng] 44-440

- Cold air distribution options with ice storage. Meckler, G., [1989, p.1194-1205, eng] 44-445

- CBS/ICE: a computer program for simulation of ice storage systems. Silver, S.C., et al, [1989, p.1206-1213, eng] 44-446

- Component models for computer simulation of ice storage systems. Silver, S.C., et al, [1989, p.1214-1226, eng] 44-447

- Ice storage can reduce the construction cost of office buildings. Pearson F.J., [1989, p.1308-1316, eng] 44-448

- Design of cold air distribution systems with ice storage. Dorgan, C.E., et al, [1989, p.1317-1322, eng] 44-449

- Onset of freezing in residential air-to-air heat exchangers. Fisk, W.J., et al, [1985, p.145-158, eng] 44-2015

- Heat exchanger performance with freezing and periodic defrosts. Fisk, W.J., et al, [1985, p.159-172, eng] 44-2016

- Snow removal and air conditioning system for Nagaoka City. Umemura, T., et al, [1989, p.265-274, jpn] 44-2355

- See *also*: Cooling systems

Air cushion vehicles

- Ice-breaking attachment on air cushion. Zuev, V., et al, [1986, p.37-38, rus] 44-328

- Study on controllability of the PPO5A hovercraft for the Antarctic. Nojiri, T., et al, [1984, p.90-93, jpn] 44-1688

- LCAC arctic design initiative. Ehrhardt, J.P., [1989, p.371-391, eng] 44-3158

- Notes on icebreaking with air cushion vehicles. Carter, D., [1989, p.5-23, eng] 44-4133

- Some exploratory tests on circular and sidewall ACIB concepts. Colbourne, B., et al, [1989, p.39-55, eng] 44-4134

- Hovercraft operations in Antarctica. Dibbern, J.S., [1989, p.59-68, eng] 44-4135

- Hovercraft trials on Song-Hua River. Zhao, J., et al, [1989, p.69-75, eng] 44-4136

- Technical and ecological aspects of transportation in the North. Migirenko, G.S., et al, [1989, p.107-113, rus] 44-4520

Air entrainment

- Freeze-thaw testing of coarse aggregate in concrete. Vogler, R.H., et al, [1989, p.57-66, eng] 44-132

- Some recent problems with air-entrained concrete. Hover, K.C., [1989, p.67-72, eng] 44-133

- Formation and decomposition of air hydrates in glacier ice. Lipenkov, V.I.A., [1989, p.58-64, rus] 44-336

- Freezing and thawing durability of high strength silica fume concrete. Kashi, M.G.R., et al, [1989, p.138-148, eng] 44-1411

- Producing concrete with good salt-frost resistance. Peterson, P.E., [1989, 18p., eng] 44-2807

- Effect of specifications and inspection practices on concrete freeze-thaw resistance. Ward, M.A., et al, [1990, p.271-276, eng] 44-3703

Air flow

- Calculation of flow over iced airfoils. Cebeci, T., [1989, p.853-861, eng] 44-400

- Test for aerodynamic streamlining and snow load distribution pattern. Korotich, A.V., et al, [1989, p.47-51, rus] 44-1055

- Analysis of frost formation on vehicle windows. Sakamoto, H., et al, [1987, p.1.55-1.66, eng] 44-1191

- Tracer gas measurement of air exchange in buildings. Flanders, S.N., et al, [1989, p.433-444, eng] 44-1358

- Investigation into the post-stable behavior of a tube array in cross-flow. Lever, J.H., et al, [1989, p.457-465, eng] 44-1536

- Aid to forecasting heavy snowfall episodes. Auer, A.H., Jr., [1987, p.11-14, eng] 44-2085

- Air change measurements of five Army buildings in Alaska. Flanders, S.N., [1990, p.53-63, eng] 44-2944

- SAR image statistics related to atmospheric drag over sea ice. Burns, B.A., [1990, p.158-165, eng] 44-3011

- Model to compare freezing control strategies for residential air-to-air heat recovery ventilators. Phillips, E.G., et al, [1989, p.475-483, eng] 44-3031

- Comparison of freezing control strategies for residential air-to-air heat recovery ventilators. Phillips, E.G., et al, [1989, p.484-490, eng] 44-3032

- Short-term climatic variability of the Arctic. Walsh, J.E., et al, [1990, p.237-250, eng] 44-3205

- Wind tunnel study of melting behavior of snow flakes. Mitra, S.K., et al, [1990, p.584-591, eng] 44-3284

- Doppler radar observation of orographic modification of snow clouds—a case of enhanced snowfall. Nakai, S., et al, [1990, p.1-16, jpn] 44-3310

- Friction loss through a uniform snow layer. Yen, Y.C., [1990, p.83-90, eng] 44-3542

- Mathematical models for rime-ice accretion on conductors. Skelton, P.L.I., et al, [1990, p.309-321, eng] 44-3604

- Inclusion of sensible heating in convective parameterization applied to lake-effect snow. Ellenton, G.E., et al, [1979, p.551-565, eng] 44-3748

Air ice interface

- See *also*: Ice air interface

Air inflated structures

- See *also*: Inflatable structures

Air masses

- Structure of a convergent cloud band over the Japan Sea in winter. Nagata, M., [1987, p.871-883, eng] 44-1303

- Major Arctic outbreaks affecting Louisiana. Mortimer, E.B., et al, [1988, p.5-14, eng] 44-2086

- Predicting severe agricultural freezes. Brotak, E.A., [1988, p.15-19, eng] 44-2087

- Atmospheric transport during AGASP-II. Herbert, G.A., et al, [1989, p.2521-2535, eng] 44-2266

- Modelling of atmospheric transport of sulphates to the Arctic. Iversen, T., [1989, p.2571-2595, eng] 44-2269

- Transport of pollution aerosol from Asia and the Arctic to Japan. Rahn, K.A., et al, [1989, p.2597-2607, eng] 44-2270

- See *also*: Air pollution

- Formation of the chemical composition of snow in polluted spruce forests. Evtugina, Z.A., [1988, p.55-59, rus] 44-195

- Determination of regional sources of aerosol black carbon in the Arctic. Kahl, J.D., et al, [1989, p.327-330, eng] 44-388

- Test of remote sensing chemical agent alarm. Potuznik, W.J., et al, [1989, 31p. + appends, eng] 44-476

- Modeling of scavenging of pollutants in clouds. Easter, R.C., et al, [1988, 9p., eng] 44-803

- Effect of anti-hail efforts on air pollution. Vorob'eva, T.I., et al, [1989, p.145-151, rus] 44-822

- Atmospheric radon and dust over Greenland Sea. Bressan, D.J., et al, [1973, p.74-77, eng] 44-952

- Pb-210 in air and snow near nuclear research center. Parveen, N., et al, [1988, 16p., eng] 44-959

- Statistical analysis of pH in rain and snow. Watanabe, N., et al, [1988, p.389-397, eng] 44-1299

- Measurements and analyses of aerosol particles in arctic Canada. Taniguchi, T., et al, [1989, p.397-414, eng] 44-1623

- CO modeling in Alaska. Johnson, R.A., et al, [1989, p.191-207, eng] 44-1762

- Threats to the Arctic environment. Stokke, O.S., [1989, p.21-27, eng] 44-1767

- Presence of heavy metals in urban snow. Sakai, H., et al, [1985, p.141-149, eng] 44-1931

- Atmospheric delivery of organochlorines in Arctic Ocean fauna. Bidleman, T.F., et al, [1989, p.307-313, eng] 44-1933

- Lichens as monitors of air pollution near a uranium mine. Kershaw, K.A., et al, [1989, 42p., eng] 44-2114

- Origin of summer arctic hazes over Greenland and the North American Arctic. Brook, J.A., et al, [1989, p.129-148, eng] 44-2171

- Concentrations of summer arctic hazes over Greenland and the North American Arctic. Ishizaka, Y., et al, [1989, p.149-159, eng] 44-2172

- Contributions of burning of carbonaceous materials to arctic haze over Greenland. Radke, L.F., et al, [1989, p.161-167, eng] 44-2173

- Correlation among combustion effluent species at Barrow, AK. Hansen, A.D.A., et al, [1989, p.283-299, eng] 44-2181

- Concentrations of atmospheric constituents observed at Alert, Canada. Chung, Y.S., [1989, p.317-330, eng] 44-2183

- Sulfur dioxide in the North American Arctic. Thornton, D.C., et al, [1989, p.331-346, eng] 44-2184

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- Proceedings. [1989, 285p., eng] 44-2249

- Arctic air pollution: a Norwegian perspective. Ottar, B., [1989, p.2349-2356, eng] 44-2250

- Air pollution properties at Norwegian Arctic stations. Iversen, T., [1989, p.2451-2462, eng] 44-2258

- Anthropogenic sulphur flux into the Arctic in 1979/80. Barrie, L.A., et al, [1989, p.2505-2512, eng] 44-2264

- Lead isotope ratios in arctic aerosols. Sturges, W.T., et al, [1989, p.2513-2519, eng] 44-2265

- Major haze event near Point Barrow, Alaska. Bridgman, H.A., et al, [1989, p.2537-2549, eng] 44-2267

- Modelling of atmospheric transport of sulphates to the Arctic. Iversen, T., [1989, p.2571-2595, eng] 44-2269

- Transport of pollution aerosol from Asia and the Arctic to Japan. Rahn, K.A., et al, [1989, p.2597-2607, eng] 44-2270

- Toward estimation of climatic effects due to arctic aerosols. Blanchet, J.P., [1989, p.2609-2625, eng] 44-2271

- Studies on acid snow. Araki, K., et al, [1986, p.331-335, jpn] 44-2476

- Periodic atmospheric circulation dynamics in polar regions. Lagun, V.E., et al, [1990, p.192-193, eng] 44-4088

- Atmospheric aerosol, trace gases and atmospheric transparency in the Arctic. Barteneva, O.D., et al, [1990, p.203-212, eng] 44-4090

- Atmospheric trace gases in the polar environment. Kelley, J.J., et al, [1990, p.212-224, eng] 44-4091

- International project of the ozonosphere investigation on Heiss Island (HIP experiment). Khattatov, V.U., et al, [1990, p.224-226, eng] 44-4092

Air snow interface

- See *also*: Snow air interface

Air soil interface

- See *also*: Soil air interface

Air temperature

- Glacier classification in China. Lai, Z.M., et al, [1989, p.103-111, eng] 44-178

- Turbulent flux of sensible heat near antarctic polynyas. Engelbart, D., [1989, p.111-121, ger] 44-220

- Year of Bowen ratios over the frozen Beaufort Sea. Andreas, E.L., [1989, p.12,721-12,724, eng] 44-231

- Modes of synoptic development within the Polar Basin. LeDrew, E.F., [1989, p.79-85, eng] 44-299

- Meteorological effects on snowmelt runoff, Caucasus. Ananicheva, M.D., et al, [1989, p.160-164, rus] 44-354

- Radiation measurements of snow season in 1988 in Sapporo. Kodama, Y., et al, [1988, p.27-33, jpn] 44-458

- Winter atmospheric circulation of Korea; stationary waves. Lee, D.K., et al, [1988, p.16-35, eng] 44-1447

- Tropospheric circulation and winter temperature in Korea. Kang, I.S., [1988, p.1-15, eng] 44-1448

- Winter atmospheric circulation of Korea; transient eddies. Lee, D.K., et al, [1988, p.1-21, eng] 44-1449

- Statistical properties of freeze date variables. Waylen, P.R., et al, [1989, p.1314-1328, eng] 44-1526

- Temperature drops produced by snow cloud microbursts. Shirooka, R., et al, [1989, p.367-380, eng] 44-1749

- Distribution of air temperature in avalanche zones. Samukashvili, R.D., [1989, p.19-28, rus] 44-1779

- Charskaya Basin—geographical proving ground of the BAM zone. Naprasnikov, A.T., et al, [1987, 98p., rus] 44-1875

- Influence of some environmental factors on the evolution of river ice covers. Kolodko, J., (1989, p.116-121, eng) **44-2028**
- Aid to forecasting heavy snowfall episodes. Auer, A.H., Jr., (1987, p.11-14, eng) **44-2085**
- Major Arctic outbreaks affecting Louisiana. Mortimer, E.B., et al, (1988, p.5-14, eng) **44-2086**
- Climatology of statewide extreme temperatures during winter months in the coterminous United States. Parker, A.J., (1989, p.349-367, eng) **44-2638**
- Long-term climatic and environmental records from antarctic ice. Lorus, C., et al, (1989, p.11-16, eng) **44-2781**
- Formation of ice-hoar/frost phenomena. Pospelova, V.F., et al, (1984, p.94-104, rus) **44-2799**
- Basic parameters of continentality in soil climate of lowland plains of the USSR. Danov, N.S., et al, (1989, p.98-105, eng) **44-3251**
- Three-wavelength scintillation measurement of turbulent heat fluxes. Andreas, E.L., (1990, p.74-77, eng) **44-3355**
- Expected sea-level rise from climatic warming in the Antarctic. Budd, W.F., (1988, p.74-82, eng) **44-3356**
- Cold regions engineering: climatic warming concerns for Alaska. Esch, D.C., et al, (1990, p.6-14, eng) **44-3385**
- Some measurements of turbulence over an antarctic ice shelf. King, J.C., (1990, p.379-400, eng) **44-3569**
- Regional climatic trends in northern New England. Haugen, R.K., et al, (1988, p.64-71, eng) **44-3927**
- Differences between air and snow surface temperatures during evaporation. Bernier, P.Y., et al, (1989, p.117-120, eng) **44-4004**
- Detecting global change in the Arctic. Weller, G., (1990, p.163-170, eng) **44-4085**
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- Active and passive remote sensing of ice. Final report 1 Oct. 88-30 Sep. 89. Kong, J.A., (1989, 15p., eng) **44-2654**
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Aircraft icing (cont.)

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- See *also*: Tanker aircraft
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—Yukon Delta

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- China-Japan biological study at Great Wall Station. Watanabe, K., et al. [1990, p.94-101, jpn] **44-3742**
- Arctic-antarctic primary production and energy flow comparison studies. Fukuchi, M., et al. [1990, p.102-112, eng] **44-3743**
- Neutral lipid levels in sea ice microalgae. Priscu, J.C., et al. [1990, p.149-155, eng] **44-3791**
- Biological instrumentation for underice studies in the Arctic. Herman, A.W., [1988, p.49-53, eng] **44-3803**
- Microorganisms concentrated by frazil ice. Garrison, D.L., et al. [1990, p.92-96, eng] **44-3825**
- Phagotrophy and fecal pellets from athecate dinoflagellate in sea ice. Buck, K.R., et al. [1990, p.75-84, eng] **44-3895**
- Nitzschia* and related diatoms from arctic and antarctic fast ice. Medlin, L.K., et al. [1990, p.451-479, eng] **44-3992**
- Snow algae in upstate New York and Quebec Province. Hoham, R.W., et al. [1989, p.196-200, eng] **44-4012**
- Summer and fall satellite color studies of ice edges. Comiso, J.C., et al. [1990, p.9481-9496, eng] **44-4328**
- Alimentation**
- See *also*: Glacier alimentation
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- See *also*: Chemical properties
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- Bibliography of patents for snowmobiles and motorized sleds (1970-1988). [1988, 116p., eng] **44-794**
- Use of off-road vehicles and mitigation of effects in Alaska permafrost environments: a review. Slaughter, C.W., et al. [1990, p.63-72, eng] **44-3049**
- See *also*: Tracked vehicles
- Alloys**
- Cyclic strength of BrB2 alloy at temperatures of 293 and 77 K. Samarín, V.K., [1990, p.210-213, rus] **44-4383**
- Determination of low-temperature strengthening of aluminum alloys. Stepanov, G.A., et al. [1990, p.229-233, rus] **44-4388**
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- Alluvium**
- Influence of the periglacial regime on alluvial structures of different stages. Kholmovoi, G.V., [1988, p.90-100, rus] **44-2520**
- Alpine glaciation**
- Facies model for deglaciation in an alpine valley. Pugin, A., [1989, p.235-248, eng] **44-2391**
- Quaternary paleogeography and periglacial geomorphology of Mt. Huangshan. Zhou, B.G., et al. [1989, p.161-166, chi] **44-2410**
- Late Pleistocene glaciers and the climate of western Montana, U.S.A. Locke, W.W., III, [1990, p.1-13, eng] **44-2659**
- Climatic effects on glacier distribution in British Columbia. Evans, I.S., [1990, p.58-64, eng] **44-4163**
- Neoglaciation in the southern Kenai Mountains, Alaska. Wiles, G.C., et al. [1990, p.319-322, eng] **44-4218**
- See *also*: Mountain glaciers
- Alpine landscapes**
- Phenological inversions in alpine terrain (western Tien Shan). Lynov, I.U.S., [1984, p.185-188, eng] **44-281**
- Mountain meadow soils of alpine lichen wastelands, northern Caucasus. Makarov, M.I., [1985, p.71-73, eng] **44-4683**
- Plant and soil groups in the alpine grasslands of the Vanoise Massif, French Alps. Gensac, P., [1990, p.195-201, eng] **44-4051**

- Analyses of permafrost cores from an alpine rock glacier.
Haeberli, W., ed. [1990, 38p., eng] 44-4131
- Alpine soils**
See *also*: Mountain soils
- Alpine tundra**
Relic cryoxerophytic communities of the western
Chukotski peninsula and their soils. Kozitskaia, L.T., et
al. [1985, p.148-153, eng] 44-279
- Climate of Niwot Ridge, Front Range, Colorado, U.S.A.
Greenland, D., [1989, p.380-391, eng] 44-2010
- Weathering trends in fine debris beneath a snow patch,
Niwot Ridge, Front Range, Colorado. Thorn, C.E., et
al. [1989, p.307-321, eng] 44-2636
- Alps**
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ger] 44-1029
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F.E., [1989, p.31-41, eng] 44-107
- Periglacial forms and morphodynamics in southern
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- Altitude**
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H.J., et al. [1989, p.1587-1589, eng] 44-1371
- Mass-balance gradients and climatic change. Oerlemans,
J., et al. [1989, p.399-405, eng] 44-1902
- Snow line and timber line, Qinghai-Xizang Plateau. Wu,
X.H., [1989, p.113-124, chi] 44-2406
- Atmospheric icing rates with elevation on northern New
England mountains, U.S.A. Ryerson, C.C., [1990,
p.90-97, eng] 44-2664
- Vertical distribution characteristics of sulphate deposition
in snow cover. Vasilenko, V.N., et al. [1989, p.86-89,
rus] 44-2850
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eng] 44-4210
- Aluminium**
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- Amorphous ice**
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Funel, M.C., et al. [1989, p.7123-7129, eng] 44-766
- Entropy of amorphous ice. Whalley, E., et al. [1989,
p.782-783, eng] 44-1409
- Slow-electron scattering in solid H₂O. Michaud, M., et
al. [1987, p.4684-4699, eng] 44-1819
- Opening of new decay channels for core-excited
resonances. Michaud, M., et al. [1987, p.645-648,
eng] 44-1820
- Transformation of low-density to high-density amorphous
ice. Floriano, M.A., et al. [1989, p.7187-7192, eng] 44-1936
- Structure of high-density amorphous water. II. Neutron
scattering study. Bellissent-Funel, M.C., et al. [1987,
p.2231-2235, eng] 44-2116
- Amorphization of cubic ice by ultraviolet radiation.
Kouchi, A., et al. [1990, p.134-135, eng] 44-3115
- Computational study of formation dynamics and structure
of amorphous ice condensates. Zhang, Q., et al. [1990,
p.5004-5016, eng] 44-3275
- Type I isotherms for N₂ adsorption on vapor deposited
amorphous solid water. Pletzer, R., et al. [1989,
p.5207-5208, eng] 44-3620
- Amphibious vehicles**
I.C.A.C. arctic design initiative. Ehrhardt, J.P., [1989,
p.371-391, eng] 44-3158
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Correlation function study for sea ice. Lin, F.C., et al.
[1988, p.14,055-14,063, eng] 44-261
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- Constitutive theory for snow as a continuous multiphase
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- Multiphase flows in porous media. Morel-Seytoux, H.J.,
[1987, p.103-174, eng] 44-307
- Heat conduction in snow. Yen, Y.C., [1989, p.21-32,
eng] 44-827
- Numerical method for multidimensional freezing problems.
Saitoh, T., [1986, p.105-114, jpn] 44-1331
- Comments on "A physical bound on the Bowen ratio".
Andreas, E.L., [1989, p.1252-1254, eng] 44-1524
- Using differential methods in solving problems of freezing-
thawing. Zviagin, V.V., et al. [1989, p.108-114, rus] 44-2160
- Versatile procedure for calculating heat transfer through
windows. Arasteh, D.K., et al. [1989, p.755-765, eng] 44-3033
- Estimates for temperature of a piece of cold ice. Payne,
L.E., et al. [1990, p.443-452, eng] 44-3276
- Some remarks on the regularization of supercooled one-
phase Stefan problems in one dimension. Fasano, A., et
al. [1990, p.153-168, eng] 44-3309
- Strength requirements in the proposed CASPPR. Daley,
C.G., [1990, p.X/1-X/13, eng] 44-3485
- Fundamental equation for water from the melting line to
1273 K. Saul, A., et al. [1989, p.1537-1564, eng] 44-3698
- On the numerical solution of Stefan problems in temperate
ice. Hutter, K., et al. [1990, p.41-48, eng] 44-3720
- Random choice method for the Stefan problem. Sod,
G.A., [1990, p.1-9, eng] 44-3785
- Fast implicit finite-difference method for the analysis of
phase change problems. Voller, V.R., [1990, p.155-
169, eng] 44-3797
- Calculating the breakup of a river ice cover. Kozitskil,
I.E., [1989, p.17-28, rus] 44-4400
- Calculating ice jam water levels. Buzin, V.A., [1989,
p.28-41, rus] 44-4401
- Calculating the water surface temperature of reservoirs.
Vuglinskii, V.S., [1989, p.101-119, rus] 44-4410
- Coastal sea ice deformations. Erlingsson, B., [1989,
p.1335-1347, eng] 44-4433
- Redistribution function applicable to a dynamic model of
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- See *also*: Mathematical models; Statistical analysis; Stefan
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- Anchor ice**
See *also*: Bottom ice
- Anchors**
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platforms. Gerwick, B.C., [1988, p.451-457, eng] 44-1162
- Self-burying anchor. Fan, Y.L., et al. [1988, p.459-464,
eng] 44-1163
- Anchors for avalanche fences on roads. Kanno, M., et al.
[1989, p.91-96, jpn] 44-3566
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Ballivy, G., et al. [1990, p.357-364, fre] 44-3682
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- Effect of ice and meteorological conditions on true seals.
Timoshenko, I.U.K., [1986, p.177-182, eng] 44-277
- Winter ecology. Schmid, W.D., [1986, p.335-340, eng] 44-278
- Port and ocean engineering under arctic conditions.
Proceedings, Vol.2. [1988, 111p., eng] 44-860
- Responses of migrating narwhal and beluga to icebreaker
traffic at the Admiralty Inlet ice-edge, N.W.T. in 1986.
Cosens, S.E., et al. [1988, p.39-54, eng] 44-861
- Evidence of glacial seismic events in the acoustic
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[1988, p.95-108, eng] 44-862
- Winter habits of salmon and trout. Calkins, D.J.,
[1989, 9p., eng] 44-1483
- Relation of zonation of sponge communities to sea-level
change in the arctic margin. Van Wagoner, N.A., et al.
[1989, p.2341-2355, eng] 44-2275
- Recent arctic shelf foraminifera: seasonally ice covered vs.
perennially ice covered areas. Schröder-Adams, C.J., et
al. [1990, p.8-36, eng] 44-2435
- Effect of extreme snowcover on feeding-site selection by
woodland caribou. Brown, W.K., et al. [1990, p.161-
168, eng] 44-3025
- Acute toxicity of petroleum hydrocarbons to the arctic
littoral mysid *Mysis oculata* (fabricius). Riebell, P.N., et
al. [1989, p.161-185, eng] 44-3800
- Anion exchange**
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- Changes in structure and properties of frozen soils.
Zykov, I.U.D., et al. [1985, p.13-20, rus] 44-2365
- Physics of alloys of titanium and zirconium at low
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rus] 44-4348
- Antarctica**
Antarctic drainage flow and implications for southern
hemispheric flow. James, I.N., [1989, p.279-290, eng] 44-65
- Radar maps of the Arctic and Antarctica using data from
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analysis. Burtsev, A.I., et al. [1989, p.434-451, eng] 44-185
- Science in Antarctica, Vol.8: Oceanography. Kusunoki,
K., ed. [1989, 137p., jpn] 44-210
- Science in Antarctica, Vol.5: Earth sciences. Yoshida, Y.,
ed. [1986, 427p., jpn] 44-211
- Science in Antarctica, Vol.3: Meteorology. Kawaguchi,
S., ed. [1988, 335p., jpn] 44-212
- Detection of clouds in Antarctica from infrared satellite
data. Yamanouchi, T., et al. [1987, p.949-962, eng] 44-1304
- Satellite radar altimetry over ice. Vol.4: Antarctica.
Zwally, H.J., et al. [1990, 54p., eng] 44-1825
- Estimates of antarctic precipitation. Bromwich, D.H.,
[1990, p.627-629, eng] 44-2104
- Waste management practices of the United States
Antarctic Program. Reed, S.C., et al. [1989, 28p.,
eng] 44-2105
- Antarctic support operations, 1987-1988. Becker, R.A.,
[1988, p.219-221, eng] 44-2142
- Paleovariations of carbon dioxide in antarctic ice cores.
Semiletov, I.P., et al. [1989, p.196-199, rus] 44-2606
- Operation Deep Freeze 89/90 end of season report
[1990, var. p., eng] 44-3327
- Expected sea-level rise from climatic warming in the
Antarctic. Budd, W.F., [1988, p.74-82, eng] 44-3356
- Airfields on antarctic glacier ice. Mellor, M., et al.
[1989, 97p., eng] 44-3383
- US global ice core research program West Antarctica and
beyond. Grootes, P.M., et al. [1989, 32p., eng] 44-3738
- Adélie Coast**
Blowing snow in eastern Antarctica. Wendler, G.,
[1989, p.264-265, eng] 44-661
- Air sea interactions in coastal zone, deep sea formation
and katabatic wind. Gallée, H., et al. [1989, 40p. +
21p., eng] 44-1352
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Gosink, J.P., [1989, p.367-394, eng] 44-2433
- Alasheyev Bight**
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[1989, p.108-114, rus] 44-3074
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- Polar ice ablation rates measured using *in situ* cosmogenic
C-14. Lal, D., et al. [1990, p.350-352, eng] 44-4039
- Amundsen-Scott Station**
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S.M., et al. [1989, 18p., eng] 44-1
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- Evaluation of the Amundsen-Scott South Pole Station
power source. Esper, J., [1988, p.18-19, eng] 44-1314
- Neutrino astronomy. Halzen, F., et al. [1989, p.39-51,
eng] 44-2071
- ICEMANd: microwave detection of ultra-high energy
neutrinos in ice. Ralston, J.P., et al. [1989, p.52-60,
eng] 44-2072
- New ideas in South Pole experiments. Seckel, D., [1989,
p.61-63, eng] 44-2073
- Soot in the atmosphere and snow surface of Antarctica.
Warren, S.G., et al. [1990, p.1811-1816, eng] 44-2383
- Global monitoring at the United States baseline stations
with emphasis on precipitation chemistry measurements.
Artz, R.S., [1989, p.255-267, eng] 44-2384
- Origins and variations of nitrate in south polar
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3507, eng] 44-3068
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734, eng] 44-306
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254, eng] 44-2739
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258, eng] 44-2740
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103, rus] 44-3073
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p.234-268, jpn] 44-1471
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1989. Moriawaki, K., et al. [1989, p.293-319, jpn] 44-1472
- Automatic weather station at Asuka Camp, Antarctica.
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- Long-term climatic and environmental records from antarctic ice. Lorius, C., et al. (1989, p.11-16, eng) 44-2781
- Runway sites for heavy wheeled aircraft in East Antarctica. Budd, W.F., et al. (1990, 35p. + 25 folded maps in separate loose-leaf bind., eng) 44-3894
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- Hoare, Lake**
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- Larsen Ice Shelf**
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- Topography and surface features of Larsen Ice Shelf. Ridley, J.K., et al. (1989, p.299-310, eng) 44-1390
- Law Dome**
Studies on the BHQ ice core from the Law Dome, Antarctica. Huang, M., et al. (1990, p.20-26, eng) 44-4550
- Lützow-Holm Bay**
Seismic telemetry network at Showa Station. Akamatsu, J., et al. (1989, p.1-12, eng) 44-2388
- Sea ice observations near Lützow-Holm Bay. Yoshida, Y., et al. (1990, p.8-14, eng) 44-3739
- Marie Byrd Land**
Physical conditions at the base of a fast moving antarctic ice stream. Engelhardt, H., et al. (1990, p.57-59, eng) 44-2818
- Mawson Station**
East antarctic sea ice zone: ice characteristics and drift. Allison, I., (1989, p.103-115, eng) 44-301
- Review of the climate of Mawson—a representative strong wind site in East Antarctica. Streten, N.A., (1990, p.79-89, eng) 44-2358
- McMurdo Ice Shelf**
Fish story from the Antarctic, II. Kellogg, T.B., et al. (1988, p.82-84, eng) 44-1705
- McMurdo Sound**
Neutral lipid content in sea-ice microalgae in McMurdo Sound. Priscu, J.C., et al. (1989, p.191-193, eng) 44-30
- Effect of temperature on nitrogen and carbon metabolism in sea-ice microalgae. Priscu, J.C., et al. (1989, p.196-198, eng) 44-31
- Photosynthetic pigments in sea-ice communities in McMurdo Sound. Palmisano, A.C., et al. (1989, p.198-199, eng) 44-32
- Seismic reflection surveys. Davy, B.W., et al. (1989, p.15-21, eng) 44-1435
- Level ice resistance of USCGC *Polar Sea* in Antarctica. Voelker, R.P., et al. (1988, 94p., eng) 44-1944
- Scattering and absorption of light by sea ice. Buckley, R.G., et al. (1990, p.49-52, eng) 44-3817
- Ammonium oxidizer activity and N₂O in sea ice. Priscu, J.C., et al. (1990, p.37-46, eng) 44-3893
- Biogenic sedimentation in McMurdo Sound, Antarctica. Dunbar, R.B., et al. (1989, p.155-179, eng) 44-3935
- Influence of snowcover on the growth of antarctic fast ice. Crocker, G.B., (1989, p.156-164, eng) 44-4008
- McMurdo Station**
Improving snow roads and airstrips in Antarctica. Lee, S.M., et al. (1989, 18p., eng) 44-1
- Binders for snow roads and runways in Antarctica. Barber, M.J., et al. (1989, p.84-86, eng) 44-215
- Fanning machines for building runways on ice. Mellor, M., (1989, 8p. + attachments, eng) 44-225
- Designing a new science facility for McMurdo Station. Haehnle, R.J., (1988, p.4-6, eng) 44-1313
- Comparison of stratospheric clouds in the Antarctic and the Arctic. Hofmann, D.J., et al. (1989, p.1429-1432, eng) 44-2589
- Melbourne, Mount**
Radio echo soundings and geothermy at Mt. Melbourne. Delisle, G., et al. (1989, p.435-453, eng) 44-3052
- Mizuho Plateau**
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- Estimates of ice sheet thinning from antarctic ice cores. Kameda, T., et al. (1990, p.131-135, eng) 44-4178
- Seasonal variation of isotopes in ice cores. Satow, K., et al. (1990, p.256-260, eng) 44-4205
- Mizuho Station**
Preliminary estimate of inertia effects in a bulk model of katabatic wind. Kikuchi, T., et al. (1989, p.61-69, eng) 44-1802
- Chemical composition of snow drift on Mizuho Plateau. Osada, K., et al. (1989, p.70-78, eng) 44-1803
- Dynamics of Mizuho Plateau ice sheet. Nishio, F., et al. (1989, p.97-104, eng) 44-1806
- Dating the Mizuho 700-m core from core ice fabric data. Nakawo, M., et al. (1989, p.105-110, eng) 44-1807
- JARE glaciological data collected in 1988-1989. Watanabe, O., et al. (1990, 77p., eng) 44-3448
- Transport rates of chemical constituents by drifting snow at Mizuho Station. Osada, K., et al. (1990, p.43-50, eng) 44-3546
- Total gas content of ice core from Mizuho Station. Kameda, T., et al. (1990, p.51-57, eng) 44-3547
- Molodetzchnaya Station**
25 years of soundings from the ice in Alasheyev Bight. Petrov, N.M., (1989, p.142-148, eng) 44-2442
- Installation of light-optical beacon equipment for navigation signals at Molodetzchnaya Station. Kolodiaznyi, V.A., (1989, p.120-125, rus) 44-3076
- Newall Glacier**
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- Palmer Station**
Ice-forming nuclei at Palmer Station, Antarctica. Saxena, V.K., et al. (1989, p.266-267, eng) 44-662
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- Probing the structure and movement of the antarctic ice sheet. Nishio, F., (1988, p.2-9, jpn) 44-381
- Geomorphology and glaciology of second highest dome in Queen Maud Land. Ageta, Y., et al. (1989, p.88-96, eng) 44-1805
- Snow chemistry over an inland high plateau, Queen Maud Land. Kamiyama, K., et al. (1989, p.18,515-18,519, eng) 44-1942
- Geostatistics in the glaciology of Queen Maud Land. Herzfeld, U.C., et al. (1990, p.107-110, eng) 44-4172
- Queen Maud Mountains**
Dominion Range ice core characteristics, Antarctica. Mayewski, P.A., et al. (1990, p.11-16, eng) 44-3716
- Reclus Glacier**
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- Ronne Ice Shelf**
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- Ross Ice Shelf**
Upper Miocene sediments beneath the Ross Ice Shelf. Harwood, D.M., et al. (1989, p.91-115, eng) 44-1941
- Sedimentation beneath ice shelves—the view from ice stream B. Alley, R.B., et al. (1989, p.101-120, eng) 44-1943
- Weather satellite views iceberg. Brandt, H.W., (1988, p.16, eng) 44-2119
- One-dimensional mixed layer model beneath the Ross Ice Shelf with tidally induced vertical mixing. Scheduikat, M., et al. (1990, p.29-42, eng) 44-2357
- Mercury content of antarctic surface snow: initial results. Dick, A.L., et al. (1990, p.973-978, eng) 44-3585
- Ammonium oxidizer activity and N₂O in sea ice. Priscu, J.C., et al. (1990, p.37-46, eng) 44-3893

- Ice of the antarctic Pacific. Keys, J.R., 1990, p.95-123, eng. 44-4054
- Age of Cray Ice Rise. Bindshadler, R.A., et al., 1990, p.13-16, eng. 44-4152
- Ice core 1400 y oxygen isotope history. Grootes, P.M., et al., 1990, p.94-98, eng. 44-4169
- Ross Sea
- Carbonate deposits and sea ice advance, Ross Sea. Lawrence, M.J.F., et al., 1989, p.267-278, eng. 44-1110
- Ross Sea data buoy project, 1986-1988. Moritz, R.E., 1988, p.78-80, eng. 44-1703
- Subsurface currents in the southeast Ross Sea. Jacobs, S., 1988, p.80-81, eng. 44-1704
- Glacial history of the Ross Sea region based on DSDP Leg 28 Sites 272 and 273. Savage, M.L., 1982, 187p., eng. 44-3184
- SMMR observations of the sea ice regime in the Ross Sea, 1979-1985. Jacobs, S., et al., 1990, p.179-181, eng. 44-3846
- Seismic reflection studies of sediments in the Ross Sea. Karl, H.A., 1989, p.205-223, eng. 44-3936
- Russkaya Station
- Regularity of ice formation conditions in Russkaya Station coastal zone. Korotkov, A.I., 1989, p.16-29, rus. 44-2820
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- Schirmacher Ponds
- Arthrobacter isolates from soils of Schirmacher Ponds. Shivaji, S., et al., 1989, p.225-229, eng. 44-1865
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- Geophysical soundings of permafrost on Seymour I. Fournier, H.G., et al., 1990, p.301-307, eng. 44-3301
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- Heterotrophic bacteria under fast ice at Showa Station. Satoh, H., et al., 1985, p.200, jpn. 44-61
- Rate of photosynthesis in phytoplankton under fast ice. Satoh, H., et al., 1985, p.201, jpn. 44-62
- Heterotrophic bacteria under fast ice near Showa Station. Satoh, H., et al., 1989, p.329-333, eng. 44-463
- JARE-26 meteorological observations at Showa Station, 1985. Meshida, S., et al., 1989, p.191-219, jpn. 44-1470
- Designing buildings to withstand winds at Showa Station. Mitsuhashi, H., 1984, p.39-40, eng. 44-1676
- Snow chemistry at Showa Station. Kanamori, S., et al., 1989, p.79-87, eng. 44-1804
- Step frequency radar experiments on the antarctic sea ice. Uratsuka, S., et al., 1989, p.127-132, eng. 44-1810
- Pigment data from ice cores near Showa Station, Mar. 1983-Jan. 1984. Watanabe, K., et al., 1990, 88p., eng. 44-3357
- Meteorological observations at Showa Station, 1987. Kaneto, S., et al., 1990, p.15-45, jpn. 44-3740
- Signy Island
- Freezing effects on terrestrial algae and cyanobacteria. Davey, M.C., 1989, p.29-36, eng. 44-1798
- Siple Coast
- Seismic studies on the Siple Coast, 1987-1988. Bentley, C.R., et al., 1988, p.54-55, eng. 44-1691
- Electromagnetic studies on the Siple Coast, 1987-1988. Bentley, C.R., et al., 1988, p.56-58, eng. 44-1692
- Siple Coast firm and ice studies: conclusion and prospects. Alley, R.B., et al., 1988, p.58-59, eng. 44-1693
- Hot-water drilling on the Siple Coast. Boller, W.L., et al., 1988, p.62-63, eng. 44-1696
- Northern radar for ice sheet sounding. Demarest, K.R., et al., 1988, p.63-64, eng. 44-1697
- Landsat thematic mapper imagery of the Siple Coast. Bindshadler, R.A., et al., 1988, p.214-215, eng. 44-2139
- Siple Station
- Little Ice Age record from Siple Station. Mosley-Thompson, E., et al., 1990, p.199-204, eng. 44-4193
- Sør Rondane Mountains
- Dynamics of the antarctic ice cap. Declerq, H., et al., 1989, 51p., eng. 44-1353
- JARE-30 field work in Sør Rondane Mountains, 1988-1989. Moriawaki, K., et al., 1989, p.293-319, jpn. 44-1414
- Ice thickness of Sør Rondane glaciers. Declerq, H., et al., 1989, p.133-141, eng. 44-1811
- South Pole
- Correlating ice crystal types with halo types. Tape, W., 1989, p.262-264, eng. 44-660
- Modeling onset of glaciation. Crowley, T.J., et al., 1990, p.39-47, eng. 44-4158
- Terra Nova Bay
- Aerial observations of katabatic winds near Terra Nova Bay. Parish, T.R., et al., 1989, p.1570-1585, eng. 44-3184
- Glacier mass balance in Terra Nova Bay, Antarctica. Zanoni, G., 1988, p.56-58, ita. 44-748
- Sedimentation history of Terra Nova Bay region. Krissiek, L.A., 1988, p.104-106, eng. 44-1706
- Geomorphology and glaciology of Terra Nova Bay. Baroni, C., et al., 1987, p.371-336, ita. 44-2098
- Strandline Glacier, Terra Nova Bay, Antarctica. Baroni, C., et al., 1987, p.337-350, ita. 44-2099
- Glaciers of Terra Nova Bay area. Chinn, T.J.H., et al., 1989, p.299-319, eng. 44-3051
- Terra Nova Bay: a geographic overview. Orombelli, G., 1987, p.69-75, eng. 44-3245
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- Trans-antarctic Mountains
- Isotopic oxygen-18 results from blue-ice areas. Grootes, P.M., et al., 1988, 70 eng. 44-1700
- Vestfold Hills
- Periglacial landforms on Vestfold Hills and Fildes Peninsula. Zhang, Q., 1990, p.1-9, chn. 44-4548
- Victoria Land
- Geomorphology and glaciology of Terra Nova Bay. Baroni, C., et al., 1987, p.321-336, ita. 44-2098
- Radio echo sounding, north Victoria Land ice sheet. Engelhardt, H., et al., 1989, p.111-117, eng. 44-3050
- Vostok Station
- Formation and decomposition of air hydrates in glacier ice. Lipenkov, V.I.A., 1989, p.58-64, rus. 44-336
- Prolonged anabiosis for sporogenous bacteria in the interior of the Central Antarctic Glacier. Abayov, S.S., et al., 1989, p.566-571, eng. 44-1473
- Crystalline structure of the Vostok ice core. Lipenkov, V.I.A., et al., 1989, p.392-398, eng. 44-1901
- Long-term climatic and environmental records from antarctic ice. Lorius, C., et al., 1989, p.11-16, eng. 44-2781
- Core drilling with semi-automatic borehole tools on hoist cat. Vasiliev, N.I., 1989, p.51-58, rus. 44-3494
- Volume relaxation of ice core from Vostok Station borehole. Lipenkov, V.I.A., et al., 1989, p.59-72, rus. 44-3495
- Formation characteristics of different types of atmospheric precipitation. Aver'ianov, V.G., 1989, p.80-91, rus. 44-3497
- Recent increase in nitrate concentration of antarctic snow. Mayewski, P.A., et al., 1990, p.258-260, eng. 44-4038
- Stable isotope precipitation model. Fisher, D.A., 1990, p.65-71, eng. 44-4164
- Global climatic change from the Vostok ice core. Jouzel, J., et al., 1989, p.15-24, eng. 44-4254
- Weddell Sea
- AMERIEZ 1986: activities on board the R/V *Melville* and USCGC *Glacier*. Sullivan, C.W., et al., 1989, p.167-169, eng. 44-20
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- Weddell Sea and Antarctic Peninsula biota in part ice. Garrison, D.L., et al., 1989, p.211-219, eng. 44-1864
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- Temperature and salinity staircases in the northwestern Weddell Sea. Muench, R.D., et al., 1990, p.295-306, eng. 44-2792
- Ice shelf water tracers and water ice interaction in Weddell Sea. Schlosser, P., et al., 1990, p.3253-3263, eng. 44-3185
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- Development and physical properties of sea ice in the Weddell Sea, Antarctica. Lange, M.A., 1990, p.22-28, eng. 44-3811
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- NASA sea ice validation program for the DMSP SSM/I. Cavalieri, D.J., et al., 1990, p.197-203, eng. 44-3849
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- Production of the sand-aggregate concrete at freezing temperature. Matyszkowski, T., et al., 1989, p.223-230, eng. 44-1985
- Properties of concrete using of antifreezing admixtures. Watanabe, H., et al., 1986, p.525-530, jpn. 44-2494
- Use of antifreezing admixtures for concrete. Watanabe, H., et al., 1988, p.512-517, jpn. 44-2720
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- Predicting unfrozen water content behavior of a soil. Black, P.B., et al., 1990, p.54-60, eng. 44-2966
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- Helices of antifreeze. Pain, R.H., 1988, p.207-208, eng. 44-3903

Antifreezes (cont.)

- Antifreeze admixtures for cold weather concreting. Preliminary test results. Korhonen, C.J., et al. (1990, 8p., eng). **44-3915**
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- See (also): Polar regions

Arctic Ocean

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- Arctic data compilation and appraisal. Vol.7. Canadian Basin-Arctic Ocean. Birch, J.R., et al. (1984, 624p., eng). **44-1458**
- Arctic data inventory and appraisal. Vol.18. Canada Basin. Thomas, D.J., et al. (1986, 109p., eng). **44-1474**
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- Resolution of ionic components of late winter arctic aerosols. Li, S.M., et al. (1989, p.2387-2399, eng) **44-2253**
- Ionic geochemistry of late winter arctic aerosols. Li, S.M., et al. (1989, p.2401-2415, eng) **44-2254**
- Measurements of hazes in polar air masses. Radke, L.F., et al. (1989, p.2417-2430, eng) **44-2255**
- Relationship between ozone and filterable bromine in the high Arctic. Oltmans, S.J., et al. (1989, p.2431-2441, eng) **44-2256**
- Boundary layer ozone depletion during AGASP-II. Mickle, R.E., et al. (1989, p.2443-2449, eng) **44-2257**
- Air pollution properties at Norwegian Arctic stations. Iversen, T., (1989, p.2451-2462, eng) **44-2258**
- Major ions and scavenging of sulphate in the Norwegian Arctic. Joranger, E., et al. (1989, p.2463-2469, eng) **44-2259**
- Light hydrocarbons in the Norwegian Arctic. Hov, O., et al. (1989, p.2471-2482, eng) **44-2260**
- Seasonal variations in Greenland Ice Sheet pollutants. Davidson, C.I., et al. (1989, p.2483-2493, eng) **44-2261**
- Absence of eruptive particles in arctic aerosols. Sievering, H., et al. (1989, p.2495-2499, eng) **44-2262**

Atmospheric composition (cont.)

- Anticyclonic perspective on low-level tropospheric long-range transport. Raatz, W.E., [1989, p.2501-2504, eng] **44-2263**
- Anthropogenic sulphur flux into the Arctic in 1979/80. Barrie, L.A., et al. [1989, p.2505-2512, eng] **44-2264**
- Lead isotope ratios in arctic aerosols. Sturges, W.T., et al. [1989, p.2513-2519, eng] **44-2265**
- Atmospheric transport during AGASP-II. Herbert, G.A., et al. [1989, p.2521-2535, eng] **44-2266**
- Major haze event near Point Barrow, Alaska. Bridgman, H.A., et al. [1989, p.2537-2549, eng] **44-2267**
- Trace element features of atmospheric aerosol in the Norwegian Arctic. Maenhaut, W., et al. [1989, p.2551-2569, eng] **44-2268**
- Modelling of atmospheric transport of sulphates to the Arctic. Iversen, T., [1989, p.2571-2595, eng] **44-2269**
- Transport of pollution aerosol from Asia and the Arctic to Japan. Rahn, K.A., et al. [1989, p.2597-2607, eng] **44-2270**
- Toward estimation of climatic effects due to arctic aerosols. Blanchet, J.P., [1989, p.2609-2625, eng] **44-2271**
- Martian polar cap: radiative effects of ozone, clouds, and airborne dust. Lindner, B.E., [1990, p.1367-1379, eng] **44-2288**
- Sublimation and transport of water from the north residual polar cap on Mars. Haberle, R.M., et al. [1990, p.1423-1437, eng] **44-2290**
- Simulations of the general circulation of the Martian atmosphere 1. Polar processes. Pollack, J.B., et al. [1990, p.1447-1473, eng] **44-2292**
- Mars atmospheric D/H: consistent with polar volatile theory? Jakosky, B.M., [1990, p.1475-1480, eng] **44-2293**
- H₂O grain size and the amount of dust in Mars' residual north polar cap. Kieffer, H.H., [1990, p.1481-1493, eng] **44-2294**
- Winter frost at Viking Lander 2 site. Svitek, T., et al. [1990, p.1495-1510, eng] **44-2295**
- Estimating the effects of rain and snow on potential reactor accident consequences. ApSimon, H.M., et al. [1986, p.235-242, eng] **44-2348**
- Origins and variations of nitrate in south polar precipitation. Legrand, M.R., et al. [1990, p.3493-3507, eng] **44-3068**
- Short-term climatic variability of the Arctic. Walsh, J.E., et al. [1990, p.237-250, eng] **44-3205**
- Remote sensing of atmospheric vapor fluxes. Uttal, T., et al. [1990, p.22-34, eng] **44-3289**
- Greenhouse warming: consequences for Arctic climate. Etkin, D., [1990, p.54-66, eng] **44-3391**
- Ice-core record of atmospheric methane over the past 160,000 years. Chappellaz, J., et al. [1990, p.127-131, eng] **44-3579**
- Canadians confirm ozone hole in Arctic. Dayton, S., [1988, p.47, eng] **44-3586**
- Diagnostic for denitrification in the winter polar stratospheres. Fahey, D.W., et al. [1990, p.698-702, eng] **44-4033**
- Depletion of hydrogen peroxide in a Greenland ice core. Laj, P., et al. [1990, p.45-48, eng] **44-4036**
- Consumption of atmospheric methane by tundra soils. Whalen, S.C., et al. [1990, p.160-162, eng] **44-4037**
- Recent increase in nitrate concentration of antarctic snow. Mayewski, P.A., et al. [1990, p.258-260, eng] **44-4038**
- Geophysical activities in Greenland of the Danish Meteorological Institute. Lassen, K., [1990, p.32-40, eng] **44-4063**
- Dynamics of spatial and temporal variations of electromagnetic processes in the Arctic (wave phenomena). Troitskaia, V.A., [1990, p.40-43, eng] **44-4064**
- Geophysical processes in the polar cusp. Raspopov, O.M., [1990, p.44-47, eng] **44-4065**
- Aurora-related studies in Finland 1988. Sucksdorff, C., [1990, p.47-52, eng] **44-4066**
- Atmospheric aerosol, trace gases and atmospheric transparency in the Arctic. Barteneva, O.D., et al. [1990, p.203-212, eng] **44-4090**
- Atmospheric trace gases in the polar environment. Kelley, J.J., et al. [1990, p.212-224, eng] **44-4091**
- International project of the ozoneosphere investigation on Heias Island (HIP experiment). Khattatov, V.U., et al. [1990, p.224-226, eng] **44-4092**
- Aircraft studies of polar stratospheric clouds in the Arctic in 1988. Dosov, V.N., et al. [1990, p.226-229, eng] **44-4093**
- Effects of glaciation on methane-hydrate stability. MacAyeal, D.R., et al. [1990, p.183-185, eng] **44-4189**
- Atmospheric chemicals in a Greenland ice core. Mayewski, P.A., et al. [1990, p.554-556, eng] **44-4259**
- Atmospheric density**
- Effects of blowing snow on katabatic wind density current. Gosink, J.P., [1989, p.367-394, eng] **44-2433**
- Canadians confirm ozone hole in Arctic. Dayton, S., [1988, p.47, eng] **44-3586**

Atmospheric disturbances

- Comments on "Use of enhanced IR/visible satellite imagery to determine heavy snow areas". Elkins, H.A., [1989, p.251-255, eng] **44-265**
- Kinematics of upper air cyclones and the intensity of hail processes. Goral, G.G., et al. [1989, p.124-132, rus] **44-819**
- Atmospheric dispersion in the Arctic: winter-time boundary-layer measurements. Guenther, A., et al. [1989, p.339-366, eng] **44-2432**
- Geophysical processes in the polar cusp. Raspopov, O.M., [1990, p.44-47, eng] **44-4065**
- Atmospheric electricity**
- Measurements of the electrode effect over flat, snow-covered ground. Knudsen, E., et al. [1989, p.521-527, eng] **44-1239**
- Atmospheric physics**
- Determining atmospheric transparency and turbidity-causing components. Kuznetsov, I.S., et al. [1989, p.32-48, rus] **44-1036**
- Atmospheric pollution**
- See *also*: Air pollution
- Atmospheric pressure**
- Modes of synoptic development within the Polar Basin. LeDrew, E.F., [1989, p.79-85, eng] **44-299**
- Experimental studies on a powder-snow avalanche. Kawada, K., et al. [1989, p.129-134, eng] **44-561**
- Forecasting polar lows. Kanestrom, L., et al. [1988, p.337-341, eng] **44-951**
- Weather observations at GvN Station, 1985-1987. Helmes, L., [1989, 90p., eng] **44-1070**
- How ionic meteorology is influenced by surface fronts. Ingersoll, A.P., [1989, p.298-313, eng] **44-1953**
- Major Arctic outbreaks affecting Louisiana. Mortimer, E.B., et al. [1988, p.5-14, eng] **44-2086**
- Surface energy balance near an antarctic ice shelf front. Heinemann, G., et al. [1990, p.123-158, eng] **44-3527**
- Impact of the Siberian high and Aleutian low on sea ice cover. Parkinson, C.L., [1990, p.226-229, eng] **44-4199**
- Attenuation**
- Attenuation and scattering of radar waves of nonhomogeneous hail. Inuikhin, V.S., et al. [1989, p.53-59, rus] **44-812**
- Scattering and attenuation of radio waves in hail clouds. Abshaev, M.T., et al. [1989, p.76-81, rus] **44-870**
- Low frequency attenuation in the Arctic Ocean. DiNapoli, F.R., et al. [1986, p.387-395, eng] **44-1744**
- Light attenuation matrices for certain types of ice. Bogorodskii, V.V., et al. [1987, p.361-363, eng] **44-2058**
- High frequency acoustical properties of saline ice. K.C., et al. [1989, p.9-23, eng] **44-3135**
- See *also*: Atmospheric attenuation
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- Angers**
- Saint Mary's River-Little Rapids cut ice boom, 1982-83. [1983, 59p., eng] **44-1635**
- Austria**
- Oetzal Alps
- Mass-balance gradients and climatic change. Oerlemans, J., et al. [1989, p.399-405, eng] **44-1902**
- Salzburg
- Black snow episodes in Austria. Malissa, H., et al. [1989, p.140-150, eng] **44-1948**
- Automation**
- See *also*: Computer applications
- Automobiles**
- See *also*: Motor vehicles
- Avalanche deposits**
- Snow avalanche dams in Glacier National Park. Butler, D.R., [1989, p.109-115, eng] **44-113**
- Snow-avalanche maps for use by the Norwegian Army. Lied, K., et al. [1989, p.170-174, eng] **44-568**
- Debris transport by avalanche, Torlesse Range, New Zealand. Ackroyd, P., [1986, p.1-14, eng] **44-1451**
- Clearing avalanche deposits. Poliakov, I.S., et al. [1989, p.54-61, rus] **44-1572**
- Avalanche snow in seasonal snowmelt of Himalayas. De Scally, F.A., [1989, n.p., eng] **44-1601**
- Avalanche sedimentation on the Black Sea shelf. Abulatov, N.A., et al. [1989, p.21-28, rus] **44-2377**
- Characteristics of the present glaciers on the northern slope of Mt. Qogoli. Qin, D.H., et al. [1989, p.125-136, chij] **44-2407**
- Avalanche engineering**
- Safe use of explosives in avalanche blasting. Brugnot, G., et al. [1989, p.20-21, eng] **44-541**
- Cost effectiveness of anti-avalanche engineering structures. Zhigul'skii, A.A., [1989, p.19-28, rus] **44-1565**
- Protecting the city of Petropavlovsk-Kamchatski from avalanches. Shaikhutdinov, R.Sh., [1989, p.28-33, rus] **44-1566**
- Snow cover and avalanche parameters for designing anti-avalanche structures. Votkovskii, K.F., et al. [1989, p.40-45, rus] **44-1569**
- Avalanche impact load at snow shed. Matsuba, Y., [1985, p.245-250, jpn] **44-2323**

- Model tests of retarding structures for avalanches and its numerical simulation. Nakanishi, H., et al. [1986, p.278-283, jpn] **44-2469**
- Slope distance between tiers of anti-avalanche snow fences. Matsuba, Y., et al. [1986, p.284-289, jpn] **44-2470**
- Fundamental experiment on retarding structure for avalanches. Shimomura, C., et al. [1987, p.427-432, jpn] **44-2557**
- Report on the facilities for snow avalanche prevention in Europe. Izumi, K., [1989, p.83-88, jpn] **44-2634**
- Fundamental experiment on retarding structure for avalanches (Vol.2). Shimomura, C., et al. [1988, p.196-201, jpn] **44-2684**
- Precast concrete avalanche fences. Akiyama, H., [1988, p.202-207, jpn] **44-2685**
- Numerical simulation of pressure on snow-glide supporting structures. Tagashira, S., et al. [1988, p.214-219, jpn] **44-2687**
- Fundamental experiment on retarding structure for avalanches (Vol.3). Shimomura, C., et al. [1989, p.126-131, jpn] **44-2867**
- Anchors for avalanche fences on roads. Kanno, M., et al. [1989, p.91-96, jpn] **44-3566**
- See *also*: Snow fences
- Avalanche erosion**
- Subalpine snow avalanche slopes. Butler, D.R., [1989, p.269-273, eng] **44-495**
- Debris accumulation patterns on talus slopes in Surprise Valley, Alberta. Luckman, B.H., [1988, p.247-278, eng] **44-1030**
- Avalanche forecasting**
- Wet-snow metamorphism in relation to liquid water content. Brun, E., [1989, p.22-26, eng] **44-542**
- Experience of operational avalanche forecasting. Buser, O., [1989, p.31-34, eng] **44-544**
- Maximum avalanche run-out distance. Lied, K., et al. [1989, p.164-169, eng] **44-567**
- Equations for avalanche mass center motion. Nohguchi, Y., [1989, p.215-217, eng] **44-577**
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- Determining ejection distances for avalanches of specified volume. Ebralidze, Z.N., [1989, p.47-51, rus] **44-620**
- Forecasting avalanche formation from a snow slab. Girovka, N.N., [1989, p.80-87, rus] **44-1390**
- Avalanche mass determination in Pakistan Himalaya. De Scally, F.A., et al. [1989, p.248-252, eng] **44-1552**
- Strength of snow samples and questions in avalanche forecasting. Berri, B.L., [1989, p.72-81, rus] **44-1575**
- Strength of snow deposited by a snowstorm. Zhidkov, V.A., et al. [1989, p.81-95, rus] **44-1576**
- Snow transfer in a storm and diagnosing an avalanche hazard. Chernous, P.A., [1989, p.101-111, rus] **44-1578**
- Indicator of massive avalanche formation and catastrophic avalanches. Volodicheva, N.A., et al. [1989, p.128-135, rus] **44-1581**
- Evaluating the informational content of avalanche formation factors. Kanaev, L.A., et al. [1989, p.135-145, rus] **44-1582**
- Long range forecasting by paleogeographic reconstruction of avalanche activity. Vashchalova, T.V., [1989, p.145-155, rus] **44-1583**
- Methodical basis of avalanche forecasting. Glazyrin, G.E., et al. [1989, p.155-164, rus] **44-1584**
- New methods for avalanche forecasting. Drozdovskaya, N.F., et al. [1989, p.164-171, rus] **44-1585**
- Avalanche forecasting using data on snow deterioration and movement. Berri, B.L., [1989, p.171-179, rus] **44-1586**
- Data processing of avalanche information for avalanche forecasting. Kanaev, L.A., et al. [1989, p.179-185, rus] **44-1587**
- Bayes method of indicating an avalanche hazard. Ziuzin, I.U., [1989, p.185-187, rus] **44-1588**
- Evaluating avalanche hazards in the arctic mountain region. Zhidkov, V.A., et al. [1989, p.188-200, rus] **44-1589**
- Evaluating avalanche hazards on the basis of meteorological information. Gnishchenko, V.F., [1989, p.200-209, rus] **44-1590**
- Avalanche hazard derived from satellite photographs. Barbat, I.U.P., [1989, p.220-223, rus] **44-1592**
- Determining avalanche hazard zone boundaries. Blagoveshchenskii, V.P., [1989, p.223-232, rus] **44-1593**
- Snow physics, avalanches, mudflows. Bolov, V.R., ed. [1989, 107p., rus] **44-1776**
- Avalanches and avalanche-prone regions in Chechen-Ingush ASSR. Kozhaev, D.A., [1989, p.3-10, rus] **44-1777**
- Snow cover model for avalanche forecasting. Brun, E., et al. [1989, p.333-342, eng] **44-1894**
- Guidelines for weather, snowpack and avalanche observations [1989, 49p., eng] **44-2082**
- Avalanche forecast. Aoki, S., et al. [1985, p.225-230, jpn] **44-2319**
- Prediction trial of snowslip danger slopes by the personal computer. Mouishi, M., et al. [1985, p.231-233, jpn] **44-2320**

- Snow cover stability and avalanches. Fukue, M., et al, 1985, p.234-239, jpnj 44-2321
- Areal gradation in regard to avalanche in its habitual district. Nishimura, H., et al, 1986, p.263-268, jpnj 44-2466
- Forecasting of direct-action avalanches in dry new snow. Endo, Y., 1986, p.269-271, jpnj 44-2467
- Weather conditions at times of avalanches in Niigata Prefecture. Izumi, K., 1987, p.422-426, jpnj 44-2556
- Avalanche mechanics**
- Subalpine snow avalanche slopes. Butler, D.R., 1989, p.269-273, eng 44-495
- Measurements of friction coefficients of snow blocks. Casassa, G., et al, 1989, p.40-44, eng 44-546
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- Studies of granular avalanche flow. Hutter, K., et al, 1989, p.109-116, eng 44-557
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- Determining the boundaries of avalanche hazard zones in Kazakhstan. Blagoveshchenskii, V.P., 1989, p.100-109, rusj 44-1392
- Destruction of snow retention structures by an avalanche. Kolesnikov, E.I., 1989, p.49-53, rusj 44-1571
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- Pandemonium Creek rock avalanche, British Columbia. Evans, S.G., et al, 1989, p.427-446, eng 44-2066
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- Model of initial failure in slab-avalanche release. Gubler, H., et al, 1989, p.90-95, eng 44-554
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- Effect of errors in estimating avalanche parameters. Andreev, I.U.B., et al, 1989, p.45-49, rusj 44-1570
- Analysis of avalanche sites: the ELSA system. Buisson, L., et al, 1990, p.16-21, frej 44-3202
- Avalanche risk estimate—a model for complete simulation of snow cover evolution. Brun, E., et al, 1990, p.17-20, frej 44-3414
- Similarity solutions for granular avalanches of finite mass with variable bed friction. Nohguchi, Y., et al, 1989, p.239-265, eng 44-3928
- Cartographic modeling of snow avalanche path location within Glacier National Park, Montana. Walsh, S.J., et al, 1990, p.615-621, eng 44-4472
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- Runout distance of large-scale avalanches. Izumi, K., 1985, p.240-244, jpnj 44-2322
- Transport mechanisms of rock avalanches. Kaiser, P.K., et al, 1990, p.129-144, eng 44-3288
- Cartographic modeling of snow avalanche path location within Glacier National Park, Montana. Walsh, S.J., et al, 1990, p.615-621, eng 44-4472
- Avalanche triggering**
- Avalanches and avalanche prevention. Fersman, A.E., 1989, p.230-234, rusj 44-359
- Safe use of explosives in avalanche blasting. Brugnot, G., et al, 1989, p.20-21, eng 44-541
- Preventive triggering of avalanches in the Chimgan area. Kamalov, B.A., et al, 1989, p.37-40, rusj 44-1568
- Relationship between depth hoar and avalanche release. Ma, W.F., et al, 1990, p.37-40, eng 44-3719
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- Avalanches**
- Destructive mass movements in high mountains: hazard and management. Eisbacher, G.H., et al, 1984, 230p., eng 44-369
- Detection of avalanches using atmospheric infrasound. Bedard, A.J., Jr., 1989, p.52-58, eng 44-504
- Avalanche-hazard index. Schaefer, P., 1989, p.241-247, eng 44-582
- Glaciers, snow cover, and avalanches in the mountains of Kazakhstan. Gorbunov, A.P., ed, 1989, 224p., rusj 44-1384
- Cost evaluation of anti-avalanche measures. Blagoveshchenskii, V.P., et al, 1989, p.88-100, rusj 44-1391
- Long-term variability in snow accumulation and avalanche activity. Borsheva, N.M., et al, 1989, p.133-138, rusj 44-1394
- Proceedings of the Third All-Union Conference on Avalanches, 1986, 1989, 247p., rusj 44-1562
- 50 years of the first anti-avalanche service of the USSR. Ziuzin, I.U.L., 1989, p.6-14, rusj 44-1563
- Cost effectiveness of avalanche countermeasures in the Apatit quarries. Chmerova, G.V., 1989, p.14-19, rusj 44-1564
- Protecting the city of Petropavlovsk-Kamchatski from avalanches. Shaikhutdinov, K.Sh., 1989, p.28-33, rusj 44-1566
- Prospects of protecting Magadan district highways from avalanches. Bulgakov, A.B., et al, 1989, p.33-36, rusj 44-1567
- Avalanche regime of mountain pass roads and mapping avalanche hazards. Abdushelishvili, K.L., et al, 1989, p.210-220, rusj 44-1591
- Searching for avalanche abstracting information. Balkarev, B.B., et al, 1989, p.84-92, rusj 44-1784
- Charskaya Basin—geographical proving ground of the BAM zone. Naprasnikov, A.T., et al, 1987, 98p., rusj 44-1875
- Snow and avalanches in the Swiss Alps, winter 1987-88. 1989, 156p., ger 44-2112
- Proceedings, 1986, 666p., jpnj 44-2445
- Afforestation at the full-depth avalanche site. Shimizu, H., et al, 1986, p.290-294, jpnj 44-2471
- Proceedings, 1987, 503p., jpnj 44-2526
- Radar to find persons buried in snow. Sakamoto, Y., et al, 1987, p.168-172, jpnj 44-2535
- 25 years of the avalanche and mudflow control laboratory. Laptev, M.N., et al, 1989, p.94-96, rusj 44-2613
- Avalanche at Rogers Pass, British Columbia, Canada, 1989. Kobayashi, S., et al, 1989, p.37-48, jpnj 44-2633
- Avalanche accident at Vassdalen, Norway, 5 March 1986. Lied, K., 1988, p.137-150, eng 44-3505
- See also: Snow slides

Backscattering

- Radar backscattering from artificially grown sea ice. Bredow, J., et al. (1989, p.259-264, eng) 44-8
- Handbook of radar scattering statistics for terrain. Ulaby, F.T., et al. (1989, 357p., eng) 44-75
- Balloon borne atmospheric observations in the north polar vortex. Rosen, J.M., et al. (1989, p.791-794, eng) 44-362
- Implications of ice surface features for SAR backscatter signatures. Drinkwater, M.R., (1989, p.501-513, eng) 44-404
- Seasonal ice margin data for Beaufort and Chukchi Seas. Carsey, F.D., et al. (1989, p.541-551, eng) 44-408
- Availability of Geosat data during the BEPERS Pilot Study. Ulander, L.M.H., (1988, p.161-165, eng) 44-1434
- Underwater acoustic backscatter from a model of arctic ice. Browne, M.J., (1987, 161p., eng) 44-1632
- Ice thickness measurement. Wallerstedt, R., (1989, p.427-450, eng) 44-3161
- Ice thickness radar measurements during CEAREX. Onstott, R.G., et al. (1989, p.451-460, eng) 44-3162
- Millimeter-wave backscatter characteristics of multilayered snow surfaces. Narayanan, R.M., et al. (1990, p.693-703, eng) 44-3695
- Radar backscatter measurements over saline ice. Gogineni, S., et al. (1990, p.603-615, eng) 44-3901

Bacteria

- AMERIEZ 1986: microbial growth and metabolism in the marginal ice zone. Sullivan, C.W., et al. (1989, p.188-190, eng) 44-29
- Microflora of tundra soils. Parinkina, O.M., (1989, 159p., rus) 44-52
- Heterotrophic bacteria under fast ice at Showa Station. Satoh, H., et al. (1985, p.200, jpn) 44-61
- Effect of ice nucleation-active xylem-residing bacteria on frost tolerance. Gagné, S., et al. (1989, p.63-73, fre) 44-397
- Heterotrophic bacteria under fast ice near Showa Station. Satoh, H., et al. (1989, p.329-333, eng) 44-463
- Low temperature bacterial treatment of wastewater. Halimo, G., (1987, 36p., eng) 44-801
- Ice-nucleating bacteria. Obata, H., (1988, p.143-152, jpn) 44-1366
- Arctic data compilation and appraisal. Vol.9. Beaufort Sea. Woods, S.M., et al. (1987, 394p., eng) 44-1459
- Freezing effects on terrestrial algae and cyanobacteria. Davey, M.C., (1989, p.29-36, eng) 44-1798
- Bacterial nucleation of ice in plant leaves. Hirano, S.S., et al. (1986, p.730-738, eng) 44-1821
- Arthrobacter isolates from soils of Schirmacher Ponds. Shivaji, S., et al. (1989, p.225-229, eng) 44-1865
- Bacteria at the heart of a good snowfall. Hampson, T., (1990, p.38, eng) 44-2788
- Size aspects of ice active bacteria nucleation sites. Burke, M.J., et al. (1990, p.81-84, eng) 44-3308
- Ammonium salts as inhibitors of ice nucleating activity of bacteria. Okada, K., et al. (1990, p.549-550, eng) 44-3582
- Ammonium oxidizer activity and N₂O in sea ice. Priscu, J.C., et al. (1990, p.37-46, eng) 44-3893

Balloons

- Balloon borne atmospheric observations in the north polar vortex. Rosen, J.M., et al. (1989, p.791-794, eng) 44-362
- Aerostat cold weather study. Technical report, 6 Mar.-31 Dec. 88. Kane, D.L., (1989, 59p., eng) 44-1050
- Photogrammetry of snow depth on roofs (Pt.4). Sakurai, S., et al. (1989, p.557-560, jpn) 44-2915

Baltic Sea

- Bothnia Experiment in Preparation for ERS-1. (1988, 163p., eng) 44-1422
- Overview of BEPERS Pilot Study. Leppäranta, M., et al. (1988, p.1-15, eng) 44-1423
- SAR flight. Kuittinen, R., (1988, p.17-29, eng) 44-1424
- Ground base I. Vainio, J., (1988, p.31-40, eng) 44-1425
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- Microwave measurements of ice and snow. Hallikainen, M.T., et al. (1988, p.69-83, eng) 44-1427
- Ice and snow surveys from an ice station. Håkansson, B., et al. (1988, p.85-101, eng) 44-1428
- Ground data for area IV. Leppäranta, M., (1988, p.103-106, eng) 44-1429
- Aerial photography in BEPERS Pilot Study. Kemppainen, H., et al. (1988, p.107-117, eng) 44-1430
- Airborne radar observations. Johansson, R., et al. (1988, p.119-147, eng) 44-1431
- Helicopter impulse radar measurement. Ulriksen, P., (1988, p.149-151, eng) 44-1432
- Satellite data. Kemppainen, H., et al. (1988, p.153-159, eng) 44-1433
- Availability of Geosat data during the BEPERS Pilot Study. Ulander, L.M.H., (1988, p.161-165, eng) 44-1434
- BEPERS-88—sea ice remote sensing with synthetic aperture radar in the Baltic Sea. Leppäranta, M., et al. (1989, p.698-699, 708-709, eng) 44-3713

Oil pollution problem in the Baltic marine environment.

- Hirvi, J.P., et al. (1989, p.307-327, eng) 44-3801
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- Airborne laser profiling of ice ridges in the Baltic Sea. Lewis, J.E., et al. (1989, p.1370-1379, eng) 44-4436
- Bothnia, Bay
- Physical properties of brackish ice, Bay of Bothnia. Weeks, W.F., et al. (1990, p.5-15, eng) 44-3809
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- Deformation of river banks in Yamal. Are, F.E., et al. (1990, p.67-73, rus) 44-4303
- See also: Shores
- Barents Sea
- Spring melt patterns in the Kara/Barents Sea: 1984. Crane, R.G., et al. (1989, p.25-33, eng) 44-294
- Synthetic aperture radar in Marginal Ice Zone Experiment 1987. Shuchman, R.A., et al. (1988, 137p., eng) 44-701
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- See also: Atmospheric pressure
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- See also: River basins
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- See also: Shore erosion
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- See also: Ice cover strength; Snow strength; Trafficability
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- Cracking mechanisms of asphalt concrete pavements at low service temperatures. Roque, R., et al. (1988, p.56-75, eng) **44-2837**
- Low temperature benefits of polymer modified asphalts. King, G.N., et al. (1988, p.198-216, eng) **44-2839**
- Study of low temperature transverse cracking in Alberta. Palsat, D.P., (1988, p.218-235, eng) **44-2840**
- McLeod's PVN concept extended to asphalt mix temperature susceptibility. Haas, R., et al. (1988, p.178-192, eng) **44-2842**
- Low temperature characteristics of engineered asphalts. Anderson, K.O., et al. (1988, p.292-310, eng) **44-2843**
- Development of standard CAN/CGSB-16.3-M asphalt cement for road purposes. Deme, L., et al. (1988, p.342-381, eng) **44-2844**
- PVN as a measure of paving asphalt temperature susceptibility. McLeod, N.W., (1988, p.382-452, eng) **44-2845**
- Initial cooling of pavements and the development of pavement cooling charts. White, S., et al. (1990, p.94-101, eng) **44-3001**
- Use of soft grade asphalts in airfields and highway pavements in cold regions. Janoo, V.C., (1990, 47p., eng) **44-4059**
- Black Sea**
Correlation of Pleistocene glaciations with transgressions of the Black and Caspian seas. Zubakov, V.A., (1989, p.105-110, rus) **44-1915**
Avalanche sedimentation on the Black Sea shelf. Albulatov, N.A., et al. (1989, p.21-28, rus) **44-2377**
- Blasting**
Safe use of explosives in avalanche blasting. Brugnol, G., et al. (1989, p.20-21, eng) **44-541**
Effectiveness of using igdantite A-6 to crush permafrost and hard rock. Samolov, V.I., et al. (1988, p.22-29, rus) **44-3704**
- See *also*: Explosion effects; Ice blasting
- Blowing snow**
Evaporation from reservoir equipped with snow fence. Sturges, D.L., (1989, p.9-20, eng) **44-499**
Sequential flash for photographing trajectories of saltating particles. Bird, K.G., et al. (1989, p.130-133, eng) **44-514**
Six years of snow-fence testing in France. Brugnol, G., (1989, p.16-19, eng) **44-540**
Development and certification of a visibility-range monitor by image processing. Ishimoto, K., et al. (1989, p.117-119, eng) **44-558**
Blowing snow in eastern Antarctica. Wendler, G., (1989, p.264-265, eng) **44-661**
Regional characteristics of snow damage in Japan. Yamada, T., et al. (1988, p.57-72, jpn) **44-732**
Snow accretion experiments on hot metallic plate. Fujii, T., et al. (1985, p.513-515, jpn) **44-2340**
Visual range monitor used for blowing snow. Fukuzawa, Y., et al. (1985, p.516-521, jpn) **44-2341**
Effect of snow break forest to improve visibility in blowing snow. Ishimoto, K., et al. (1985, p.527-532, jpn) **44-2342**
Snowbreaking capacity of road cuts. Ishimoto, K., et al. (1985, p.533-538, jpn) **44-2343**
New prevention technique of snow drifting. Matsuda, M., et al. (1985, p.547-552, jpn) **44-2344**
Effects of blowing snow on katabatic wind density current. Gosink, J.P., (1989, p.367-394, eng) **44-2433**
Weather forecasting for road protection against snowdrifts. Sato, S., et al. (1986, p.71-75, jpn) **44-2447**
Collection rate of blowing snow particle counters. Kobayashi, S., (1986, p.98-102, jpn) **44-2451**
Formation process of snow drifts around porous-plate-type snow fences. Kaneda, Y., et al. (1986, p.301-306, jpn) **44-2473**
CRREL's snowdrift wind tunnel. Anno, Y., (1987, p.405-410, jpn) **44-2553**
Blowing-snow numerical simulation. Uematsu, T., et al. (1987, p.411-416, jpn) **44-2554**
Study on mechanical property of snow fence. Oshima, T., et al. (1987, p.417-421, jpn) **44-2555**
Traffic control under poor visibility from blowing snow. Fukuzawa, Y., et al. (1989, p.110-114, jpn) **44-2864**
Verification of trench-digging effects for control of snow drifting. Kubota, H., et al. (1989, p.121-125, jpn) **44-2866**
Drift of snow by wind. Ono, S., et al. (1989, p.353-357, jpn) **44-2898**
Model study of drift accumulation of a snow fence. Cookson, P., (1987, 75p., eng) **44-2952**
Roof snowdrifts due to blizzards. O'Rourke, M.J., (1990, p.641-658, eng) **44-3197**
Blowing of snow by passing railroad cars. Imai, T., et al. (1989, p.215-219, eng) **44-3302**
- Boats**
See *also*: Ships
- Bogs**
See *also*: Swamps
- Booms (equipment)**
See *also*: Ice booms

Borehole instruments

- Drilling frozen ground with an instrument of extra-hard materials. Krasnik, V.G., et al. (1989, p.41-42, rus) **44-386**
- Hot-water drilling on the Siple Coast. Boller, W.L., et al. (1988, p.62-63, eng) **44-1696**
- Mine shaft-borehole thermal prospecting in perennially frozen rocks. Maslennikov, A.L., (1989, p.110-114, rus) **44-1727**

Boreholes

- Temperature of the Akademiya Nauk Glacier, Severnaya Zemlya. Zagorodnov, V.S., et al. (1989, p.134-138, rus) **44-348**
- Snow cover observations in Sapporo, 1986-87. Akitaya, E., et al. (1988, p.1-9, jpn) **44-456**
- Test of Newtonian gravity in Greenland ice cap. Ander, M.E., et al. (1988, 21p., eng) **44-1049**
- Pressuremeter test of frozen ground and ice mechanics. Lemoigne, Y., et al. (1988, p.75-87, eng) **44-1130**
- Test of Newton's inverse-square law in the Greenland ice cap. Ander, M.E., et al. (1989, p.985-988, eng) **44-3083**
- Borehole shaft stability during deep drilling of ice cover. Pashkevich, V.M., et al. (1989, p.39-50, rus) **44-3493**
- Core drilling with semi-automatic borehole tools on hoist cable. Vasil'ev, N.I., (1989, p.51-58, rus) **44-3494**
- Analyses of permafrost cores from an alpine rock glacier. Haeblerli, W., ed. (1990, 38p., eng) **44-4131**

Boring

See *falsoy*: Drilling

Botany

See *falsoy*: Geobotanical interpretation; Paleobotany; Plants (botany); Vegetation

Bothnia, Bay

- Field studies of brackish ice to compare with satellite data. Weeks, W.F., et al. (1989, p.1318-1333, eng) **44-4432**
- Sampling of sea ice prior to satellite sensing. Fransson, L.A., et al. (1989, p.1348-1357, eng) **44-4434**
- Sea ice concentration in the Bothnian Sea obtained from visual satellite data. Hakansson, B., (1989, p.1358-1369, eng) **44-4435**
- BEPERS-88, a sea ice remote sensing experiment in the Gulf of Bothnia. Thompson, T., et al. (1989, p.1495-1507, eng) **44-4445**

Bottom friction

See *falsoy*: Basal sliding

Bottom ice

- Frazil and anchor ice and their role in ice cover development. Gosink, J.P., et al. (1989, 430p., eng) **44-718**
- Possibility of freezing sea bottom deposits in the arctic seas. Shpolianskaia, N.A., (1989, p.72-78, rus) **44-2612**

- Salt-water anchor ice formation. Kempema, E.W., et al. (1990, p.114-116, eng) **44-3832**

Bottom sediment

- Ice beds in ice-marine sediments as a product of cryogenic diagenesis. Danilov, I.D., (1989, p.1201-1203, rus) **44-163**
- Ocean drilling in the Weddell Sea. Nagao, T., (1987, p.45-51, jpn) **44-380**
- Ocean drilling in Prydz Bay and Kerguelen Plateau. Sakai, H., (1988, p.21-26, jpn) **44-382**
- Cone penetrometer study of Chukchi Sea floor. Cox, J.C., et al. (1986, 200p., eng) **44-884**
- Gas hydrate formation as a special type of oceanic cryolithogenesis. Solov'ev, V.A., et al. (1989, p.115-120, rus) **44-1756**
- Ice scoring of near-shore bottom sediment in Beaufort Sea. Héquette, A., (1989, p.129-133, fre) **44-2083**
- Recent arctic shelf foraminifera: seasonally ice covered vs. perennially ice covered areas. Schröder-Adams, C.J., et al. (1990, p.8-36, eng) **44-2435**
- Possibility of freezing sea bottom deposits in the arctic seas. Shpolianskaia, N.A., (1989, p.72-78, rus) **44-2612**

- Ice Island sampling and investigation of sediments—Field report 1988. Mosher, D.C., et al. (1988, 42p., eng) **44-2770**

- Frost heave in lake bottom sediments, Mackenzie Delta. Burn, C.R., (1990, p.103-109, eng) **44-3650**

- Mineralogical analyses of Chukchi Sea sediments. Luepke, G., et al. (1989, 12p., eng) **44-3768**

- Marine controls on modern sedimentation on the antarctic continental shelf. Jacobs, S.S., (1989, p.121-153, eng) **44-3934**

- Biogenic sedimentation in McMurdo Sound, Antarctica. Dunbar, R.B., et al. (1989, p.155-179, eng) **44-3935**

- Seismic reflection studies of sediments in the Ross Sea. Karl, H.A., (1989, p.205-223, eng) **44-3936**

- Glaciomarine sedimentation in the Barents Sea. Elverhøi, A., et al. (1989, p.225-250, eng) **44-3937**

- Glacigenic sediments in the Barents Sea. Vorren, T.O., et al. (1989, p.251-272, eng) **44-3938**

- Glacial sedimentation along the eastern Canadian margin. Josephans, H.W., et al. (1989, p.273-300, eng) **44-3939**

- Sediment deposition in glacier-influenced fjords. Syvitski, J.P.M., (1989, p.301-329, eng) **44-3940**

- Macrofauna of Canadian arctic fjords. Dale, J.E., et al. (1989, p.331-358, eng) **44-3941**

- Glaciomarine sediments of the Alaska shelf and fjords. Powell, R.D., et al. (1989, p.359-390, eng) **44-3942**

- Glaciomarine sediments in the Gulf of Alaska. Carlson, P.R., (1989, p.391-416, eng) **44-3943**

Bottom topography

- Pipeline route selection in an iceberg-scoured seabed. Clark, J.L., et al. (1989, p.51-67, eng) **44-681**

- Effect of an ice jam on the morphology of a river channel confluence. Bergeron, N., et al. (1988, p.191-196, fre) **44-749**

- Iceberg scoring rates on the Grand Banks, Newfoundland. Lewis, C.F.M., et al. (1988, p.229-254, eng) **44-1143**

- Structure/seabed interaction of the SSDC/MAT. Baker, K.A., et al. (1988, p.441-450, eng) **44-1161**

- Beaufort Sea ice scour data base (SCOURBASE) update to 1986. Gilbert, G.R., et al. (1989, 99p., eng) **44-1487**

- Variations in ice gouge parameters related to different seabed soil types. Ticken, E.J., et al. (1990, p.337-339, eng) **44-2244**

- Relation of zonation of sponge communities to sea-level change in the arctic margin. Van Wagoner, N.A., et al. (1989, p.2341-2355, eng) **44-2275**

- 25 years of soundings from the ice in Alasheyev Bight. Petrov, N.M., (1989, p.142-148, eng) **44-2442**

- Large scale bottom topography survey from ice approaching Molodetzchnaya Station. Kniazev, I.U.A., (1989, p.108-114, rus) **44-3074**

- Analysis of a short pulse radar survey of revetments along the Mississippi River. Arcone, S.A., (1989, 20p., eng) **44-3199**

- Regional ice scour data base update studies. King, E.L., et al. (1989, 177p., appns., eng) **44-3206**

- Study of barotropic instability in the Sea of Okhotsk. Ohshima, K.I., et al. (1990, p.570-584, eng) **44-3691**

- Sediment transport by ice scouring. Barnes, P.W., et al. (1990, p.109-111, eng) **44-3830**

- Periodicities and keel spacings in the under-ice draft distribution. Key, J.R., et al. (1990, p.156-160, eng) **44-3841**

- On modeling the baroclinic adjustment of the Arctic Ocean. Hibler, W.D., III, (1990, p.247-250, eng) **44-3860**

- Ice gouges in the Beaufort Sea, Alaska, 1977-1985. Weber, W.S., et al. (1989, 72p., eng) **44-3956**

See *falsoy*: Ocean bottom

Boulders

See *falsoy*: Rocks

Bound water

See *falsoy*: Hygroscopic water

Boundary layer

- Ice breeze mechanism for boundary-layer jets. Langland, R.H., et al. (1989, p.177-195, eng) **44-164**

- Atmospheric boundary layer around an observation tower. Aota, M., et al. (1988, p.177-185, jpn) **44-738**

- Boundary layer under fast ice, Hudson Bay, Canada. Shirasawa, K., et al. (1988, p.213-221, jpn) **44-741**

- Diode-laser-doppler velocimeter and medium resolution turbulence cluster measurements. McPhee, M.G., (1985, 24p., eng) **44-1104**

- Laminar flow integration: flight tests status and plans. Wagner, R.D., et al. (1986, p.485-518, eng) **44-1406**

- Boundary layer ozone depletion during AGASP-II. Mickle, R.E., et al. (1989, p.2443-2449, eng) **44-2257**

- Atmospheric dispersion in the Arctic: winter-time boundary-layer measurements. Guenther, A., et al. (1989, p.339-366, eng) **44-2432**

- Mathematical model of the ocean boundary layer under drifting melting ice. Svensson, U., et al. (1990, p.161-171, eng) **44-2791**

- Atmospheric boundary layer around an observation tower. Aota, M., et al. (1989, p.79-89, jpn) **44-3127**

- On the front-tracking scheme for phase-change problems. Askar, H.G., et al. (1989, p.507-513, eng) **44-3248**

See *falsoy*: Interfaces; Turbulent boundary layer

Boundary value problems

- Snow creep pressures. McClung, D.M., et al. (1989, p.33-47, eng) **44-828**

- Monte Carlo simulation of a kinetic Ising model for dendritic growth. Harris, R., et al. (1990, p.L567-L571, eng) **44-3955**

Brakes (motion arresters)

- Performance of trucks braking on ice. Ervin, R.D., et al. (1987, 201p., eng) **44-1096**

Breakup

See *falsoy*: Ice breakup

Bridges

- Repair of bridge deck structures in cold weather. Final report. Kudlapur, P., et al. (1987, 219p., eng) **44-676**

- Factors affecting rates of ice cutting with a chain saw. Coutermarsh, B.A., (1989, 14p., eng) **44-775**

- Long-term performance of three bridges on permafrost. Final report. Baldassar, D., (1985, 20p., eng) **44-1291**

- Modelling bridge induced ice jams. Brown, T.G., (1990, p.169-177, eng) **44-2221**

- Characteristics of ridges in Northumberland Strait. Brown, T.G., et al. (1990, p.293-299, eng) **44-2238**

- Recommendations for selecting apparatus for thermometric systems. Pakulin, V.A., (1985, p.68-76, rus) **44-2376**

- On the design of bridge for river ice sheet (1). Hara, F., et al. (1986, p.185-191, jpn) **44-2462**

- Study on bridge design for frozen rivers, Pt.2. Hara, F., et al. (1987, p.318-321, jpn) **44-2545**

- Outdoor scale model tests of snow accumulation on bridges. Kaneda, Y., et al. (1987, p.439-444, jpn) **44-2559**

- On the design of bridge for river ice sheet (3). Hara, F., et al. (1988, p.314-321, jpn) **44-2699**

- Natural snow removal from concrete elevated railroad bridges. Tamaki, S., (1988, p.354-359, jpn) **44-2703**

- Bridge design for frozen rivers (Pt.4). Hara, F., et al. (1989, p.394-403, jpn) **44-2905**

- Winter bridging exercise on thick ice: Fort McCoy, Wisconsin, 1988. Coutermarsh, B.A., (1990, 24p., eng) **44-3957**

- Link across "Storebaelt": ice forces on the piers of the western bridge. Tryde, P., (1989, p.1202-1209, eng) **44-4426**

- Ice force measurements on a bridge pier in a small river. Sodhi, D.S., et al. (1989, p.1419-1427, eng) **44-4439**

- Ice jams on rivers. Kostelians, B.A., (1990, p.18-20, rus) **44-4479**

- See *falsoy*: Ice crossings; Pontoon bridges; River crossings

Brightness

- Low-relief topographic enhancement in a Landsat snow-cover scene. Eyton, J.R., (1989, p.105-118, eng) **44-524**

- Development and certification of a visibility-range monitor by image processing. Ishimoto, K., et al. (1989, p.117-119, eng) **44-558**

- Remote sensing of global snowpack energy and mass balance. Benson, C.S., (1989, 11p., eng) **44-714**

- Satellite-derived data sets No.2: sea ice concentrations, 1973-1976. Parkinson, C.L., et al. (1987, 43p., eng) **44-1217**

- RADTRAN microwave surface emission models. Isaacs, R.G., et al. (1989, p.433-440, eng) **44-1325**

- First year ice temperature in Okhotsk Sea. Aota, M., et al. (1989, p.111-116, eng) **44-1808**

- Microwave brightness temperatures of the Greenland Ice Sheet. Zhang, H., et al. (1989, p.277-287, eng) **44-2601**

- Microwave emission of snow-covered and snow-free terrain from satellite measurements. Aschbacher, J., et al. (1989, p.289-295, eng) **44-2602**

- Simulation of microwave brightness temperatures of an evolving hailstorm at SSM/I frequencies. Mugnai, A., et al. (1990, p.2-13, eng) **44-2758**

- Influence of large ice particles on radiative transfer through clouds. Smith, E.A., et al. (1989, p.739-755, eng) **44-3306**

- Ice microphysics and radiation transfer through a rain cloud. Smith, E.A., et al. (1989, p.627-630, eng) **44-4045**

Brines

- Geocryological-hydrogeological studies of free water transfer zones. Piguzova, V.M., ed. (1989, 160p., rus) **44-142**

- Formation of cryopegs in areas of man-made pollution. Anisimova, N.P., et al. (1989, p.98-106, rus) **44-155**

- Annual temperature variation and the level of man-made cryopegs. Andreev, S.V., (1989, p.106-112, rus) **44-156**

- Transient processes sounding method for searching and mapping cryopegs. Nim, I.U.A., et al. (1989, p.112-125, rus) **44-157**

- Ice accretion on a cylinder in cold air with seawater spray. Fukusako, S., et al. (1988, p.981-988, eng) **44-1377**

- Role of seawater freezing in the formation of subsurface brines. Herut, B., et al. (1990, p.13-21, eng) **44-1769**

- Control of brine-type ice storage systems. MacCracken, C.D., (1985, p.32-43, eng) **44-2014**

- Cryogenic scanning electron microscopy in the Arctic and Antarctic. Lilly, M.R., et al. (1990, p.51-60, eng) **44-2206**

- Chemical equilibrium model of brines below 25 C. Spencer, R.J., et al. (1990, p.575-590, eng) **44-3363**

- Melting behavior of fluid inclusions in halite crystals. Davis, D.W., et al. (1990, p.591-601, eng) **44-3364**

- System NaCl-CaCl₂-H₂O: I. the ice liquidus at 1 atm total pressure. Oakes, C.S., et al. (1990, p.603-610, eng) **44-3365**

- Liquid-absent aqueous fluid inclusions and phase equilibria in the system CaCl₂-NaCl-H₂O. Schiffman, C.M., (1990, p.611-619, eng) **44-3366**

- Brine movement during freezing of saline sand columns. Baker, G.C., et al. (1990, p.69-73, eng) **44-3645**

- Nutrient concentrations in antarctic pack ice during the austral winter. Garrison, D.L., et al. (1990, p.35-40, eng) **44-3814**

- Review of the oceanography and micrometeorology of arctic leads and polynyas. Smith, S.D., (1990, p.123-126, eng) **44-3834**

- Salt fingering in subsea permafrost. Gosink, J.P., et al. (1990, p.9575-9583, eng) **44-4334**

Brittleness

- Experimental study of the brittle behaviour of iceberg ice. Lachance, J., et al. (1988, p.11-19, eng) **44-1125**

- Failure maps for ice. Hallam, S.D., et al. (1988, p.45-55, eng) **44-1128**

- Effect of residual stress on the cold-resistance and endurance of welded joints. Larionov, V.P., et al, 1990, p.891-896, eng 44-3876
- Metallurgical approach to brittle-to-ductile-transition temperature. Huang, Z., 1990, p.185-194, eng 44-3954
- Hydraulically actuated test frame for the field determination of ice flexural properties. Demuth, M.N., et al, 1989, p.242-246, eng 44-4021
- Diagrams of structural strength of steels with respect to cold brittleness. Vikulin, A.V., et al, 1990, p.51-56, rus 44-4349
- Defect resistance of steels at low temperatures. Zlenko, G.P., et al, 1990, p.106-110, rus 44-4360
- Ultimate loads on fractured parts at low temperatures. Kostenko, N.A., et al, 1990, p.114-119, rus 44-4362
- Physical and mechanical model of cold brittleness. Meshkov, I.U.A., 1990, p.141-146, rus 44-4368
- Crack resistance of pipe welds. Mindlin, V.G., et al, 1990, p.146-150, rus 44-4369
- Brittle-fracture criteria for alloy steel bending. Sarraf, V.I., et al, 1990, p.213-215, rus 44-4384
- Steel critical brittleness temperature derived from specimen cracking. Zvezdin, I.U.I., et al, 1990, p.486-488, eng 44-4496
- Determination of critical brittleness temperatures in crack resistance testing. Karzov, G.P., et al, 1990, p.489-493, eng 44-4497
- Bubbles**
- Volume relaxation of ice core from Vostok Station borehole. Lipenkov, V.I.A., et al, 1989, p.59-72, rus 44-3495
- Total gas content of ice core from Mizuho Station. Kameda, T., et al, 1990, p.51-57, eng 44-3547
- See *also*: Gas inclusions
- Bubbling**
- How to reduce winter ice damage to marinas. Wortley, C.A., 1985, 2p., eng 44-1064
- Air bubbling against freezing in ports. Endo, K., et al, 1989, p.223-228, jpn 44-3633
- Building**
- See *also*: Construction
- Building codes**
- Revised ground snow loads for the 1990 National Building Code of Canada. Newark, M.J., et al, 1989, p.267-278, eng 44-122
- Roof collapse under snowdrift loading and snowdrift design criteria—discussion. O'Rourke, M.J., 1989, p.266-268, eng 44-2513
- See *also*: Design criteria; Specifications
- Building materials**
- See *also*: Construction materials
- Buildings**
- Reinforcing and stabilizing buildings on sagging loess soils. Gilman, I.A.D., 1989, 159p., rus 44-9
- Reference guide for building diagnostics equipment and techniques. McKenna, C.M., et al, 1989, 64p., eng 44-777
- Radial adfreezing of permafrost in the basement of buildings. Maksimov, G.N., et al, 1989, p.491-496, eng 44-925
- Recent applications of soil freezing techniques in Spanish construction works. Rojo, J.L., et al, 1989, p.525-532, eng 44-929
- Behaviour of two kinds of ground freezing: laboratory tests and case histories. Thimus, J.F., et al, 1989, p.577-578, eng 44-942
- Proceedings, 1989, 820p., eng 44-1356
- Vapor retarders to control summer condensation. Tobiasson, W., 1989, p.566-572, eng 44-1361
- Designing buildings to withstand winds at Showa Station. Mitsuhashi, H., 1984, p.39-40, eng 44-1676
- Construction of multi-story buildings under winter conditions. Shishkin, V.V., 1989, p.11-12, rus 44-2608
- Air change measurements of five Army buildings in Alaska. Flanders, S.N., 1990, p.53-63, eng 44-2944
- Distribution of building materials exposed to acid rain. Merry, C.J., et al, 1989, 156p., eng 44-3015
- See *also*: Houses; Industrial buildings; Large panel buildings; Portable shelters; Prefabrication; Residential buildings
- Cables (power lines)**
- See *also*: Power lines; Transmission lines
- Cables (ropes)**
- Towing cables and sledges over antarctic snow. Smith, A.M., et al, 1989, p.77-82, eng 44-830
- Features of plastic deformation and failure of NT-50 cables. Pokhil, I.U.A., et al, 1990, p.191-197, rus 44-4379
- Caissons**
- Structure/seabed interaction of the SSDC/MAT. Baker, K.A., et al, 1988, p.441-450, eng 44-1161
- Wave uplift forces exerted upon caisson-type breakwaters. Kadono, T., et al, 1988, p.465-475, eng 44-1164
- Coefficient of friction between concrete and asphalt-mat. Takeda, H., et al, 1988, p.661-670, eng 44-1181
- Freezing of earth and sand filling in caissons. Mizutani, K., et al, 1989, p.416-420, jpn 44-2908
- Eleven months in the installation of an arctic mobile drilling structure. Johansson, B.M., et al, 1984, p.A/1-A/19, eng 44-3450
- Ice cutters for mobility of offshore drilling structures. Slocum, R.W., 1984, p.N/1-N/9, eng 44-3462
- Steel and concrete in arctic structures. Maddock, W.J., et al, 1984, p.O/1-O/9, eng 44-3463
- Class A prediction of arctic caisson performance—discussion and reply. Sladen, J.A., et al, 1990, p.299-302, eng 44-4281
- Calorimetry**
- See *also*: Temperature measurement
- Calving**
- Giant icebergs of West Antarctica. Losev, K.S., 1989, p.132-134, rus 44-347
- Pro-glacial lake in the French Alps. Vallon, M., 1989, p.273-278, eng 44-589
- Drift of a giant iceberg in the Weddell Sea. Komyshehets, V.I., et al, 1989, p.68-71, eng 44-1004
- Giant icebergs in West Antarctica. Losev, K.S., 1989, p.72-75, eng 44-1005
- Offshore winds and pack ice movement episodes north of Ellesmere Island. Ahlén, K., et al, 1988, p.271-286, eng 44-1145
- On the nature of Svalbard icebergs. Dowdeswell, J.A., 1989, p.224-234, eng 44-1550
- Bending shear in calving ice walls. Hughes, T., et al, 1989, p.260-266, eng 44-1554
- Catastrophic breakup of a calving glacier. Theakstone, W.H., 1989, p.245-253, eng 44-2625
- Fiord to deep sea sediment transfers along the north-eastern Canadian continental margin: models and data. Andrews, J.T., 1990, p.55-70, eng 44-3532
- Calving of Erebus Glacier tongue. Robinson, W., et al, 1990, p.615-616, eng 44-4486
- Canada**
- Revised ground snow loads for the 1990 National Building Code of Canada. Newark, M.J., et al, 1989, p.267-278, eng 44-122
- Government-sponsored arctic research in Canada. Loken, O.H., 1989, p.1-17, eng 44-125
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- Wetlands of arctic Canada. Tamocai, C., et al, 1988, p.27-53, eng 44-1364
- Wetlands of subarctic Canada. Zoltai, S.C., et al, 1988, p.55-96, eng 44-1365
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- Avalanche at Rogers Pass, British Columbia, Canada. 1989. Kobayashi, S., et al, 1989, p.37-48, jpn 44-2633
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Canada (cont.)

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Oceanographic survey of the Canadian arctic archipelago, Mar. 1983. Fissel, D.B., et al. 1984, 355p., eng. 44-198
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Active patterned ground at sea level, Fourchu, Nova Scotia, Canada. Mooers, H.D., et al. 1989, p.425-432, eng. 44-2012
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Carbon dioxide and methane in the arctic atmosphere. Conway, T.J., et al. 1989, p.81-99, eng. 44-2169
Measurements of carbon dioxide at Alert during an arctic haze event. Trivett, N.B.A., et al. 1989, p.383-397, eng. 44-2187
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- Ice initiation by collision-freezing in warm-based cumuli. Czys, R.R., [1989, p.1098-1104, eng] **44-2760**
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- Long waves in channels with an ice cover. Debol'skaya, E.I., [1989, p.425-432, eng] **44-285**
- Fly ash for soil stabilization and canal lining. Jones, C.W., [1986, 41p., eng] **44-1207**
- Changes in the properties of soil linings for canal seepage control. Jones, C.W., [1987, 72p., eng] **44-1229**
- Lower Rhine: geomorphological changes. Van Urk, G., et al. [1989, p.167-182, eng] **44-1251**
- Arctic data compilation and appraisal. Vol.6. Queen Elizabeth Is. Fissel, D.B., et al. [1983, 214p., eng] **44-1457**
- Influence of heated water discharges on ice phenomena in open channels. Loose, F., [1989, p.122-133, eng] **44-2029**
- Unsteady flow in open channels with ice cover. Majewski, W., et al. [1989, p.143-151, eng] **44-2031**
- Determination of the resistance of the underside of ice cover. Majewski, W., et al. [1989, p.152-167, eng] **44-2032**
- Model study of a floating ice barrier. Molnár, I., [1989, p.189-198, eng] **44-2035**
- Effect of Danube dams on ice regime. Starosolszky, O., [1989, p.222-232, eng] **44-2038**
- Study for the design of agricultural concrete canal in cold region. Komatsu, J., et al. [1987, p.445-448, jpn] **44-2560**
- Inventory of river training structures in shallow-draft waterways. Final report. Derrick, D.L., et al. [1989, 36p., eng] **44-2652**
- Charge transfer**
- Interaction of polycrystalline ice spheres with ice crystals. Klimin, N.N., et al. [1988, p.126-129, rus] **44-68**
- Low energy ion bombardment of ices. Christiansen, J.W., [1989, 88p., eng] **44-967**
- Electrical conductivity of KOH-doped ice from 70 to 250 K. Howe, R., et al. [1989, p.963-965, eng] **44-1087**
- Ice particle charge-transfer studies. Saunders, C.P.R., [1987, 130p., eng] **44-1285**
- Charging mechanism of precipitation particles by ion capture. Asuma, Y., et al. [1987, p.973-989, eng] **44-1306**
- Charge transfer in thunderstorms and the surface melting of ice. Baker, M.B., et al. [1989, p.770-776, eng] **44-1862**
- Charts**
- Overview of BEPERS Pilot Study. Leppäranta, M., et al. [1988, p.1-15, eng] **44-1423**
- Polynya observation using satellite-derived images and charts. Dey, B., et al. [1989, p.141-149, eng] **44-3896**
- See *also*: Maps; Meteorological charts
- Chemical analysis**
- Hydrologic and chemical flux in Loch Vale watershed, Rocky Mountain National Park. Baron, J., et al. [1987, p.141-155, eng] **44-79**
- Analysis of a 290-year net accumulation time series from Mt. Logan, Yukon. Holdsworth, G., et al. [1989, p.71-79, eng] **44-174**
- Particulate and dissolved matter in snowmelt runoff. Puigdefabregas, J., et al. [1986, p.69-80, eng] **44-485**
- Snow accumulation determined by glacioclimatology. Karakoram, Pakistan. Wake, C.P., [1989, p.279-284, eng] **44-590**
- Effects of spatial and temporal variation in snowmelt on meltwater chemistry. Williams, M.W., et al. [1989, p.285-288, eng] **44-591**
- Study of natural environment in the area around the Korean antarctic station, King George Island (II). [1989, 485p., kor] **44-762**
- Isotopic composition of ice formed by water freezing. Souchez, R., et al. [1989, 52p., eng] **44-1350**
- Preliminary research on the acidity of snow cover on the Changbai mountains. Chen, D.L., et al. [1988, p.107-116, eng] **44-1450**
- Arctic data compilation and appraisal. Vol.16. Queen Elizabeth Is. Thomas, D.J., et al. [1986, 125p., eng] **44-1462**
- Dating of snow/ice cores by means of instrumental analyses. Fujii, Y., et al. [1989, p.156-190, jpn] **44-1469**
- Variations of ionic species in a forest snowcover during spring melt. Jones, H.G., et al. [1987, p.271-282, eng] **44-1686**
- Ice-core records and ozone depletion—potential for a proxy ozone record. Mayewski, P.A., et al. [1988, p.64-68, eng] **44-1698**
- Late Pliocene northern ice sheets and deep water circulation. Raymo, M.E., et al. [1989, p.413-446, eng] **44-1734**
- Characterization of snowmelt from a dump site. Pinard, D., et al. [1989, p.211-215, fre] **44-1763**
- Chemical composition of snow drift on Mizuho Plateau. Osada, K., et al. [1989, p.70-78, eng] **44-1803**
- Glaciological characteristics of cores drilled on Jostedalsgreen, southern Norway. Kawamura, T., et al. [1989, p.152-160, eng] **44-1813**
- Atmospheric delivery of organochlorines in Arctic Ocean fauna. Bidleman, T.F., et al. [1989, p.307-313, eng] **44-1933**
- Calcium magnesium acetate and sodium chloride as highway deicing salts. McCrum, R.L., [1989, p.24-28, eng] **44-2013**
- Sorption concentration of mercury (II) on silica gel. Simonova, L.N., et al. [1987, p.1047-1050, rus] **44-2054**
- Ion elution through shallow homogeneous snow. Bales, R.C., et al. [1989, p.1869-1877, eng] **44-2125**
- Carbon dioxide and methane in the arctic atmosphere. Conway, T.J., et al. [1989, p.81-99, eng] **44-2169**
- Sulfur dioxide in the North American Arctic. Thornton, D.C., et al. [1989, p.331-346, eng] **44-2184**
- Chromatographic determination of nitroaromatic residues in soil. Jenkins, T.F., et al. [1989, p.890-899, eng] **44-2345**
- Proteins protect thylakoids against freeze-thaw damage in vitro. Hinch, D.K., et al. [1990, p.416-419, eng] **44-2749**
- Snowfall Chemistry Collector Intercomparison Test (SCCIT). Sisterson, D.L., et al. [1989, p.477-488, eng] **44-2750**
- Atmospheric pollution as reflected by snowpack chemistry in the Canadian Arctic. Gorzelska, K., [1989, p.2729-2737, eng] **44-2751**
- Ion-pairing RP-HPLC method for determining tetraene in water and soil. Walsh, M.E., et al. [1989, p.159-179, eng] **44-2832**
- Monitoring atmospheric deposition in California's Sierra Nevada: a comparison of methods. McGurk, B.J., et al. [1989, p.71-79, eng] **44-3036**
- Two component mixing during acid anion leaching during rain-on-snow events. Jones, H.G., et al. [1989, p.239-250, eng] **44-3038**
- Ammonium salts as inhibitors of ice nucleating activity of bacteria. Okada, K., et al. [1990, p.549-550, eng] **44-3582**
- Mercury content of antarctic surface snow: initial results. Dick, A.L., et al. [1990, p.973-978, eng] **44-3585**
- Analytical methods for detecting military-unique compounds. Jenkins, T.F., et al. [1989, p.13-14, eng] **44-3747**
- Determination of explosive residues in soil. Part 3. Bauer, C.F., et al. [1989, 89p., eng] **44-3757**
- Influence of well casings on well water. Hewitt, A.D., et al. [1989, 9p., eng] **44-3761**
- Reconnaissance geology and exploration geochemistry of King Cove, Alaska Peninsula. DuBois, G.D., et al. [1989, 23p., eng] **44-3763**
- Thermal maturity and organic geochemistry of the Kandik basin region, east-central Alaska. Underwood, M.B., et al. [1989, 41p., eng] **44-3764**
- Chemically breaking the bond between ice and road surfaces. Trost, S.E., et al. [1987, 21p., eng] **44-3767**
- Mineralogical analyses of Chukchi Sea sediments. Luepke, G., et al. [1989, 12p., eng] **44-3768**
- Chemical and structural properties of sea ice in the southern Beaufort Sea. Meese, D.A., [1990, p.32-35, eng] **44-3813**
- Ammonium oxidizer activity and N₂O in sea ice. Priscu, J.C., et al. [1990, p.37-46, eng] **44-3893**
- Solvent extraction for solute preconcentration from water. Leung, D.C., et al. [1990, p.1355-1356, eng] **44-3922**
- Vibrational spectra and point defect activities of icy solids and gas phase clusters. Devlin, J.P., [1990, p.29-65, eng] **44-3967**
- Glacioclimatic survey of the Summit region, Greenland. Mayewski, P.A., et al. [1990, p.186-190, eng] **44-4190**
- Review of Central Asian glacioclimatic data. Wake, C.P., et al. [1990, p.301-306, eng] **44-4214**
- See *also*: Frozen ground chemistry; Isotope analysis; Soil analysis
- Chemical composition**
- Durability of concrete under simulated arctic conditions. Moukwa, M., et al. [1989, p.45-51, eng] **44-131**
- Grazing and sedimentation of ice algae during and immediately after a bloom at the ice-water interface. Tremblay, C., et al. [1989, p.291-300, eng] **44-479**
- Studies of giant and super-giant aerosol particles. Berezhinski, N.A., et al. [1989, p.108-115, rus] **44-874**
- Chemical oceanography of the Arctic Ocean. Anderson, L., et al. [1989, p.93-114, eng] **44-984**
- Wax and low temperature engine oil pumpability. Rossi, A., [1985, p.768-776, eng] **44-1190**
- Compositional effects on the low temperature pumpability of engine oils. Alpine, G.A.M., et al. [1987, p.779-787, eng] **44-1193**
- Arctic data inventory and appraisal. Vol.18. Canada Basin. Thomas, D.J., et al. [1986, 109p., eng] **44-1474**
- Role of seawater freezing in the formation of subsurface brines. Herut, B., et al. [1990, p.13-21, eng] **44-1769**
- Fatigue strength of polymer films at subzero temperature. Parfeev, V.M., et al. [1988, p.685-693, eng] **44-1881**
- Microthermometric and spectroscopic characterization of organic fluid inclusions. Seitz, J.C., et al. [1987, p.1651-1664, eng] **44-2117**
- Elemental composition of particulate material sampled from the arctic haze aerosol. Sheridan, P.J., et al. [1989, p.363-381, eng] **44-2186**
- Proceedings. [1989, 285p., eng] **44-2249**
- Resolution of ionic components of late winter arctic aerosols. Li, S.M., et al. [1989, p.2387-2399, eng] **44-2253**
- Ionic geochemistry of late winter arctic aerosols. Li, S.M., et al. [1989, p.2401-2415, eng] **44-2254**
- Major ions and scavenging of sulphate in the Norwegian Arctic. Joranger, E., et al. [1989, p.2463-2469, eng] **44-2259**
- Light hydrocarbons in the Norwegian Arctic. Hov, O., et al. [1989, p.2471-2482, eng] **44-2260**
- Lead isotope ratios in arctic aerosols. Sturges, W.T., et al. [1989, p.2513-2519, eng] **44-2265**
- Major haze event near Point Barrow, Alaska. Bridgman, H.A., et al. [1989, p.2537-2549, eng] **44-2267**
- Trace element features of atmospheric aerosol in the Norwegian Arctic. Maenhaut, W., et al. [1989, p.2551-2569, eng] **44-2268**

Chemical composition (cont.)

- Modelling of atmospheric transport of sulphates to the Arctic. Iversen, T., et al. (1989, p.2571-2595, eng) **44-2269**
- Transport of pollution aerosol from Asia and the Arctic to Japan. Rahn, K.A., et al. (1989, p.2597-2607, eng) **44-2270**
- Dynamic and thermodynamic properties of clathrate hydrates. Belosludov, V.R., et al. (1990, p.59-69, eng) **44-2275**
- Temperature and salinity staircases in the northwestern Weddell Sea. Muench, R.D., et al. (1990, p.295-306, eng) **44-2292**
- Chemical composition of precipitation, dew and frost, and fog in Denver, Colorado. Schroder, L.J., et al. (1989, p.83-90, eng) **44-3037**
- Production of low pour-point diesel fuels and high-purity paraffins from gas condensate. Babaev, I.D., et al. (1990, p.231-232, eng) **44-3204**
- Glacial meltwater input to the Alaska Coastal Current: evidence from oxygen isotope measurements. Kipphut, G.W., (1990, p.5177-5181, eng) **44-3277**
- Multiyear trends in snowpack ion accumulation and loss, northern Michigan. Stottlemeyer, R., et al. (1990, p.721-737, eng) **44-3349**
- Increase in the resistance of synthetic latexes to freezing on addition of modifying additives. Kiseleva, O.G., et al. (1990, p.873-876, eng) **44-3598**
- Effect of freezing on the composition of supercooled droplets—I. Inbarne, J.V., et al. (1990, p.383-387, eng) **44-3605**
- Recharge-discharge function of wetlands pt.2. Siegel, D.I., (1988, p.580-586, eng) **44-3878**
- Studies of snow chemistry in the Scottish Highlands. Davies, T.D., et al. (1989, p.1-13, eng) **44-3994**
- Meltwater solute concentrations at a forested site. Peters, N.B., et al. (1989, p.45-56, eng) **44-3998**
- Major ion chemistry of the pre-melt snowpack, Turkey Lake watershed, 1980-1988. Semkin, R.G., et al. (1989, p.277-281, eng) **44-4027**
- Geochemistry of subglacial calcites: implications for the hydrology of the basal water film. Sharp, M., et al. (1990, p.141-152, eng) **44-4047**
- Use of deuterium to trace drifting of sea ice. Arnason, B., (1990, p.137-147, eng) **44-4080**
- Refinery/additive technologies and low temperature pumpability. Rossi, A., (1988, p.3.970-3.980, eng) **44-4246**
- Effect of heat treatment, chemical composition and anticorrosive coatings on the threshold of cold brittleness of structural steels. Belkin, L.M., et al. (1990, p.33-38, rus) **44-4345**
- See *also*: Atmospheric composition; Frozen ground chemistry; Geochemistry; Ice composition; Snow composition; Soil chemistry; Soil composition; Water chemistry
- Chemical ice prevention**
- Chemistry of deicing roads: penetrating the ice. Trost, S.E., et al. (1988, 27p., eng) **44-626**
- Snowfighters given new options in deicers. (1989, p.53, eng) **44-769**
- Liquid CaCl lends hand in Indiana snow battle. Heine, M., (1989, p.63-64, eng) **44-771**
- Verglinit pavement ice retardant. Augeri, F., (1987, 24p., eng) **44-1284**
- Property testing and efficient spreading method for de-icing chemicals. Murakuni, M., et al. (1987, p.141-151, jpn) **44-1310**
- Surface activity of anti-icing additives. Urianskaia, N.I., et al. (1989, p.162-167, eng) **44-1886**
- Calcium magnesium acetate and sodium chloride as highway deicing salts. McCrum, R.L., (1989, p.24-28, eng) **44-2013**
- Curtailing usage of de-icing agents in winter maintenance. (1989, 125p., eng) **44-2111**
- On the new ice repellent coating. Murase, H., (1985, p.114-118, jpn) **44-2302**
- Degradation of pavements by antifreezes. Doi, S., (1985, p.289-292, jpn) **44-2327**
- Deicing measures of road surface in expressways. Murakuni, M., et al. (1986, p.451-456, jpn) **44-2486**
- Road deicing chemicals with corrosion inhibitors. Santoki, E., et al. (1988, p.245-248, jpn) **44-2692**
- Skid resistance of roads using chemical ice prevention. Murakuni, M., et al. (1988, p.249-254, jpn) **44-2693**
- Influence of deicing chemicals on sewage treatment. Kawamura, K., et al. (1989, p.330-333, jpn) **44-2897**
- Calcium magnesium acetate for snow-and-ice control. Doody, M.E., (1990, 2p., eng) **44-3047**
- Effects of deicing additives on asphalt mixtures. Mogawer, W.S., (1990, 304p., eng) **44-3268**
- Verglinit evaluation (Boulder). Final report. Kiljan, J., (1989, 21p. + appendix, eng) **44-3337**
- Aerodynamic effects of aircraft ground deicing fluids. Runyan, L.J., et al. (1989, p.24/1-24/11, eng) **44-3382**
- Snow melting agents in Hokkaido. Ninagawa, K., et al. (1989, p.103-108, jpn) **44-3568**
- See *also*: Salting
- Chemical properties**
- Influence of heavy fractions on low-temperature properties of diesel fuels. Tumanian, B.P., et al. (1989, p.39-41, eng) **44-1680**
- Lyotropic stress in lipid-water model systems. Förster, G., et al. (1989, p.1659-1668, eng) **44-1859**
- Water contributions during snowmelt in a small watershed. McDonnell, J.J., et al. (1987, p.257-266, eng) **44-1867**
- Effect of hostile marine environments on the Al-Zn-In-Si sacrificial anode. Schrieber, C.F., et al. (1988, p.70-77, eng) **44-1869**
- Salt redistribution during freezing of saline sand columns at constant rates. Baker, G.C., et al. (1989, p.1825-1831, eng) **44-2123**
- Meteorology and haze structure during AGASP-II, Pt. 1. Herbert, G.A., et al. (1989, p.17-48, eng) **44-2166**
- Meteorology and haze structure during AGASP-II, Pt. 2. Bridgman, H.A., et al. (1989, p.49-70, eng) **44-2167**
- Origin of summer arctic hazes over Greenland and the North American Arctic. Brock, C.A., et al. (1989, p.129-148, eng) **44-2171**
- In-situ measurements of physical and chemical properties of arctic haze. Clarke, A.D., (1989, p.255-266, eng) **44-2179**
- Characterization of particles collected by aerial survey over Alaska. Sheridan, P.J., (1989, p.2371-2386, eng) **44-2252**
- Relationship between ozone and filterable bromine in the high Arctic. Oltmanns, S.J., et al. (1989, p.2431-2441, eng) **44-2256**
- Air pollution properties at Norwegian Arctic stations. Iversen, T., (1989, p.2451-2462, eng) **44-2258**
- Anthropogenic sulphur flux into the Arctic in 1979/80. Barrie, L.A., et al. (1989, p.2505-2512, eng) **44-2264**
- Automatic monitoring of short duration snowmelt events in a Nova Scotia headwater stream. Howell, G.D., et al. (1989, p.145-153, eng) **44-2434**
- NMR studies of molecular motion in tetramethylammonium hydroxide pentahydrate. Ratcliffe, C.I., et al. (1990, p.159-175, eng) **44-2778**
- Dielectric and C-13 NMR studies of sulfur dioxide-hydroquinone clathrates. Davidson, D.W., et al. (1990, p.187-197, eng) **44-2779**
- Inclusion effect on heat capacities of simple molecules. White, M.A., et al. (1990, p.215-225, eng) **44-2780**
- Effect of aerosols on pH of snow. Kumai, M., (1990, p.17-30, eng) **44-2925**
- Model for electrochemical reactions in frozen solutions. Gosser, D.K., Jr., et al. (1990, p.399-402, eng) **44-2947**
- Durability of concrete containing chloride-based accelerating admixtures. Rezanoff, T., et al. (1990, p.102-112, eng) **44-3002**
- Mixing of acid meltwater with groundwater in a forested basin in Finland. Bengtsson, L., et al. (1989, p.251-258, eng) **44-3039**
- Incorporation of stratospheric acids into water ice. Elliott, S., et al. (1990, p.425-428, eng) **44-3425**
- Atmospheric denitrification via falling ice particles. Wofsy, S.C., et al. (1990, p.449-452, eng) **44-3426**
- Effect of freezing on the composition of supercooled droplets—II. retention of S(IV). Inbarne, J.V., et al. (1990, p.389-398, eng) **44-3606**
- Heterogeneous reactions on model polar stratospheric cloud surfaces. Quinlan, M.A., et al. (1990, p.3255-3260, eng) **44-3945**
- HCl/H₂O solid-phase vapor pressures and HCl solubility in ice. Hanson, D.R., et al. (1990, p.4700-4705, eng) **44-3946**
- Studies of snow chemistry in the Scottish Highlands. Davies, T.D., et al. (1989, p.1-13, eng) **44-3994**
- Chemical studies of snow in Japan. Suzuki, K., (1989, p.14-26, eng) **44-3995**
- Spring melting at an Alpine site: the influence of mineral dust. Delmas, V., (1989, p.36-44, fre) **44-3997**
- Does snow have ion chromatographic properties. Hewitt, A.D., et al. (1989, p.165-171, eng) **44-4009**
- Snow algae in upstate New York and Quebec Province. Hoham, R.W., et al. (1989, p.196-200, eng) **44-4012**
- Chemistry of snow pack accumulation and melt in a deciduous forest. Robertson, E., et al. (1989, p.219-222, eng) **44-4016**
- Chemical migration in snowpack. Murphey, B.B., et al. (1989, p.282-286, eng) **44-4028**
- Chemical reactions**
- See *also*: Photochemical reactions
- Chemicals**
- NMR study of effects of ice-forming compounds on water-oil emulsions. Arkharov, A.V., et al. (1990, p.1016-1018, eng) **44-3972**
- Chemistry**
- Effects of freezing on sulfate salts in North Dakota soils and wetlands. Richardson, J.L., et al. (1990, p.212-215, eng) **44-2985**
- Chernozem**
- Biological activity of frozen meadow-chernozem soils in the Amga River valley. Volotovskaia, T.N., et al. (1988, p.37-40, rus) **44-1962**
- China**
- Recent trends and regional differentiation of snow variation in China. Li, P.J., (1989, p.3-9, eng) **44-166**
- Evaporation from ice surface during freezing. Yin, X.C., (1989, p.29-36, eng) **44-169**
- Variations of and runoff from glaciers in China. Wang, Z.T., (1989, p.45-52, eng) **44-171**
- Equilibrium state of a glacier in China as calculated from its present characteristics. Cao, M.S., (1989, p.89-94, eng) **44-176**
- Glacier classification in China. Lai, Z.M., et al. (1989, p.103-111, eng) **44-178**
- Satellite images of glacial regions in China. Shi, Y.F., et al. (1988, p.1-11, chi) **44-629**
- Late Quaternary climate changes in eastern China. Xu, X., (1989, p.10-19, chi) **44-646**
- Introduction to Lanzhou Institute of Glaciology and Geocryology. Academia Sinica. (1988, 17p., eng) **44-3868**
- Introduction to the glaciers in China. Shi, Y.F., ed. (1989, 231p. + photographs + maps, chi) **44-3881**
- Glacier formation and snow line in China. Shi, Y.F., et al. (1989, p.11-28, chi) **44-3882**
- Radiation and heat balances on alpine glaciers in China. Bai, C.Y., (1989, p.29-54, chi) **44-3883**
- Ice formations of glaciers in China. Xie, Z.C., et al. (1989, p.55-68, chi) **44-3884**
- Mass balance of glaciers in China. Xie, Z.C., et al. (1989, p.69-87, chi) **44-3885**
- Flow of glaciers in China. Huang, M.H., (1989, p.88-104, chi) **44-3886**
- Temperature of glaciers in China. Huang, M.H., (1989, p.105-121, chi) **44-3887**
- Geochemistry of glaciers in China. Wang, P., (1989, p.122-137, chi) **44-3888**
- Types and regional distribution of glaciers in China. Shi, Y.F., et al. (1989, p.138-170, chi) **44-3889**
- Recent fluctuation of glaciers in China. Ren, B.H., (1989, p.171-186, chi) **44-3890**
- Meltwater runoff into rivers from glaciers in China. Yang, Z.N., (1989, p.187-204, chi) **44-3891**
- Debris flows and lake bursts from glaciers in China. Deng, Y.X., (1989, p.205-220, chi) **44-3892**
- Bogda Mountain**
- Quaternary glacial geomorphology, Sigong River Valley, China. Lou, T.M., (1989, p.261-268, chi) **44-2421**
- Meltwater runoff model of Heigou Glacier No.8, Bogda Mt. Hu, X.G., et al. (1989, p.279-286, chi) **44-2423**
- Keel depth in sea ice, Bohai Gulf, China. Deng, S.Q., (1988, p.151-162, eng) **44-1136**
- Bohai Gulf**
- Improving the design of ice-resistant platforms in the Bohai Gulf. Li, T.K., et al. (1988, p.345-349, eng) **44-1152**
- Design criteria of level ice compressive strength. Meng, G.L., et al. (1990, p.289-292, eng) **44-2237**
- Bohai Sea**
- Satellite monitoring of sea ice along the coast of China. Gong, J., (1989, p.379-390, eng) **44-2594**
- Changbai Mountains**
- Preliminary research on the acidity of snow cover on the Changbai mountains. Chen, D.L., et al. (1988, p.107-116, eng) **44-1450**
- Da Hinggan Ling**
- Seasonal active layer in the basin of Huola River, China. Wang, J.C., et al. (1989, p.203-214, chi) **44-2415**
- Permafrost formation in Huola River basin, North Da Hinggan Ling. Guo, D.X., et al. (1989, p.215-222, chi) **44-2416**
- Dongru Longba**
- Ice-snow meltwater debris flow in the Dongru Longba, China. Lu, R.R., et al. (1989, p.148-160, chi) **44-2409**
- Dunde Ice Cap**
- Glacial stage ice-core records from the Dunde Ice Cap, China. Thompson, L.G., et al. (1990, p.288-297, eng) **44-4212**
- Dunhuang Cave**
- Freeze-thaw test of rock samples from Dunhuang Cave. Fukuda, M., et al. (1988, p.223-230, jpn) **44-742**
- Gongba Glaciers**
- Glacial peripheral moraines at Gongba Glaciers, Gongga Mt. Kang, J.C., (1989, p.172-176, chi) **44-2412**
- Heigou Glacier**
- Stochastic processes of melt runoff from Heigou Glacier, China. Hu, X.G., (1989, p.61-67, eng) **44-173**
- Heihe River**
- Analysis of the water balance and water resources in the mountainous Heihe River basin. Yang, Z.N., (1989, p.53-59, eng) **44-172**
- Snowmelt runoff of the Heihe River in the Qilian Mts. Feng, X.Z., et al. (1988, p.64-74, chi) **44-637**
- Hoh Xil Lake**
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Snow survey of Qilian Mts. by remote sensing. Liu, Z.K., et al., 1988, p.29-39, chij 44-633
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Runoff forecasting from snowmelt, Huanghe and Heihe rivers. Zhang, S.Y., et al., 1988, p.75-84, chij 44-638
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- See *also*: Microclimatology; Paleoclimatology
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- See *also*: Artificial precipitation; Cloud dissipation; Fog dispersal; Hail prevention; Weather modification
- Cloud seeding generators**
- See *also*: Smoke generators
- Clouds (meteorology)**
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Clouds (meteorology) (cont.)

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See *also*: Hail clouds. Supercooled clouds

Coagulation

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Coalescence

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See *also*: Shoreline modification

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See *also*: Banks (waterways). Beaches. Shores

Coatings

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See *also*: Protective coatings

Codes

See *also*: Building codes. Standards

Cohesion

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Cold exposure

See *also*: Frostbite

Cold storage

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- Low temperature storage by means of heat pipe. Pt. 2. Ryokai, K., et al. (1987). p.27-26. jpn. **44-2528**

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- "Icehouse" project for cold storage. Kobiyama, M. (1987). p.31-34. jpn. **44-2530**

- Low temperature storage by heat pipes using natural cold. Pt. 3. Tsuchiya, F., et al. (1988). p.525-529. jpn. **44-2721**

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- "Icehouse" project stores snow and ice. Kobiyama, M. (1988). p.550-555. jpn. **44-2726**

- Snow storage in thermally insulated mounds. Tsushima, K., et al. (1988). p.556-561. jpn. **44-2727**

- Ice making in ice pond for cold storage. Kowata, H., et al. (1989). p.225-230. jpn. **44-2882**

- Long term preservation of ice in ice pond for cold storage. Kowata, H., et al. (1989). p.231-236. jpn. **44-2883**

- Artificial permafrost storage using heat pipes (Pt.4). Tsuchiya, F., et al. (1989). p.237-241. jpn. **44-2884**

- Storage of snow in snow mounds (Pt.2). Tsushima, K., et al. (1989). p.242-247. jpn. **44-2885**

- "Ice house" cold storage heated by respiration from potatoes. Kobiyama, M., et al. (1989). p.254-257. jpn. **44-2886**

- Food preservation in frozen ground. Ryokai, K. (1987). p.86-92. jpn. **44-3192**

Cold stress

- Cold tolerance of microarthropods. Cannon, R.J.C., et al. (1985). p.23-77. eng. **44-1884**

Cold tolerance

- Cold resistance of a seam in a high strength steel welded joint. Snisar, V.V., et al. (1988). 3p. eng. **44-1236**

See *also*: Acclimatization; Viability

Cold weather concreting

See *also*: Winter concreting

Cold weather construction

- Winter highway construction: final report. Bennett, F.L. (1987). 33p. eng. **44-204**

- Radial adfreezing of permafrost in the basement of buildings. Maksimov, G.N., et al. (1989). p.491-496. eng. **44-925**

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Cold weather operation

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- Arctic Petroleum Review, Summer 1989, Vol. 12, No. 1 (issue 30) (1989). 8p. eng. **44-3918**

- Arctic Petroleum Review, Winter 1990, Vol. 12, No. 2 (issue 31) (1990). 8p. eng. **44-3919**

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- See *also*: Soil colloids
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- See *also*: Transmission lines
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- See *also*: Radio communication; Telecommunication
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- See *also*: Chemical composition
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- See *also*: Frozen ground compression; Snow compression
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- Data processing of avalanche information for avalanche forecasting. Kanaev, L.A., et al. (1989, p.179-185, rus) **44-1587**
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- Computer programs**
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Computer programs (cont.)

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- Satellite radar altimetry over ice. Vol.2: Greenland. Zwally, H.J., et al. [1990, 82p., eng] **44-1824**
- EXSRM, an expert system for snowmelt runoff model (SRM). Engman, E.T., et al. [1989, p.417-426, eng] **44-2194**
- SINSS ice navigation console. Gautier, C., [1989, Var. p., eng] **44-2769**
- Thermal effect of power plants on an aqueous medium. Braslavskii, A.P., et al. [1989, 251p., rus] **44-2802**
- Computer estimation of freeze-thaw depths. Braley, W.A., et al. [1989, 32p., eng] **44-2936**
- Prediction of freezing rates in solids of arbitrary shape. Cleland, D.J., et al. [1984, p.6-13, eng] **44-3046**
- Star Vue interactive assistance. McAvoy, J.G., [1990, 26p. + appns., eng] **44-3947**
- Computerized simulation**
- Hydrologic modeling with remotely sensed data. Kite, G., [1989, p.1-8, eng] **44-458**
- Hydrological model input accuracy in determination of water yield. Steednick, J.D., [1989, p.36-44, eng] **44-502**
- Evolution of snowmelt simulation model into a forecasting tool. Rango, A., [1989, p.45-51, eng] **44-503**
- Spring melt simulation in the Eaux Volées watershed, Montmorency Forest, Quebec. Berraja, M., et al. [1988, p.197-203, fre] **44-750**
- Freezing of fuel in airplane fuel tanks. McConnell, P.M., et al. [1986, p.20-23, 2-6, eng] **44-1334**
- Finite element simulation of behavior of laterally loaded piles in permafrost. Foriero, A., et al. [1990, p.266-284, eng] **44-2402**
- Heterogeneous ice nucleation on small particles. Efimov, I.U.A., et al. [1989, p.1039-1041, eng] **44-2785**
- Computer simulation of two-dimensional frost heaving in soils. Hovan, J.M., [1989, 79p., eng] **44-2806**
- MTCLIM: a mountain microclimate simulation model. Hingorford, R.D., et al. [1989, 52p., eng] **44-2834**
- Prediction of pavement layer temperature during winter months using a computer model. Huber, G.A., et al. [1988, p.2-19, eng] **44-2841**
- Initial cooling of pavements and the development of pavement cooling charts. White, S., et al. [1990, p.94-101, eng] **44-3001**
- Model to compare freezing control strategies for residential air-to-air heat recovery ventilators. Phillips, E.G., et al. [1989, p.475-483, eng] **44-3031**
- Comparison of freezing control strategies for residential air-to-air heat recovery ventilators. Phillips, E.G., et al. [1989, p.484-490, eng] **44-3032**
- Dynamic simulations of iceberg-seabed interactions. Bass, D.W., et al. [1989, p.137-151, eng] **44-3097**
- Pressure of an ice field on vertical supports during horizontal movements. Matskevich, D.G., et al. [1990, p.410-414, eng] **44-3168**
- Simulation of oil slicks in rivers and lakes. Shen, H.T., et al. [1990, 29p., eng] **44-3736**
- Seismic exploration on a floating ice sheet. Rendleman, C.A., et al. [1990, p.402-409, eng] **44-3778**
- Simulation of snowflake by cellular automata. Liu, S., et al. [1989, p.193-200, eng] **44-3952**
- Monte Carlo simulation of a kinetic Ising model for dendritic growth. Harris, R., et al. [1990, p.1567-1571, eng] **44-3955**
- Computerized methods to analyze variations in airborne snow water equivalence estimates. Carroll, S.S., et al. [1990, p.35-46, eng] **44-3983**
- Simulation of hydraulics and thermal-ice regimes in river networks. Gauratna, P.P., [1990, 274p., eng] **44-4284**
- Computers**
- SINSS ice navigation console. Gautier, C., [1989, Var. p., eng] **44-2769**
- Concrete admixtures**
- Check your admixtures after winter storage. Suprenant, B.A., [1989, p.320-322, eng] **44-85**
- Freeze-thaw resistance of concrete incorporating fly ash. Malhotra, V.M., et al. [1989, p.37-46, eng] **44-693**
- Fly ash concrete for highway use. Final report. Diamond, S., et al. [1988, 377p., eng] **44-957**
- Freeze thaw durability of high strength silica fume concrete. Kashi, M.G.R., [1989, 144p., eng] **44-964**
- Durability of concrete containing fly ash. Tikalsky, P.J., et al. [1986, 158p., eng] **44-1275**
- Intensive concrete technology. Solomatin, V.I., et al. [1989, 261p., rus] **44-1754**
- Antifreeze admixtures and hardening of concrete. Ivanova, O.S., et al. [1985, p.42-51, eng] **44-1974**

- Hardening of concrete made from sintered aluminous cements. Zachara, M., et al. [1985, p.172-181, eng] **44-1982**
- Influence of slag cements on the frost resistance of green concrete. Fagerlund, G., [1985, p.182-207, eng] **44-1983**
- Research and use of antifreeze admixtures in Finland. Kivekas, L., et al. [1985, p.208-222, eng] **44-1984**
- Production of the sand-aggregate concrete at freezing temperature. Matyszkewski, T., et al. [1985, p.223-230, eng] **44-1985**
- Technology of industrial construction using cast-in-situ concrete. Ataev, S.S., [1989, 333p., rus] **44-2075**
- Producing concrete with good salt-frost resistance. Petersson, P.E., [1989, 18p., eng] **44-2807**
- Concrete durability after partial Portland cement replacement by fly ash. Langan, B.W., et al. [1990, p.19-27, eng] **44-2999**
- Durability of concrete containing chloride-based accelerating admixtures. Rezanoff, T., et al. [1990, p.102-112, eng] **44-3002**
- Set time control studies of polymer concrete. Mathy, R.G., et al. [1989, 118p. + append., eng] **44-3338**
- Antifreeze admixtures for cold weather concreting. Preliminary test results. Korhonen, C.J., et al. [1990, 8p., eng] **44-3915**
- Temperature effects on early-age properties of concrete. Gardner, N.J., [1990, p.68-78, eng] **44-4242**
- Frost resistant concretes from cast mixes with polyfunctional modifiers. Rozental, N.K., et al. [1989, p.21-22, rus] **44-4538**
- Concrete aggregates**
- Improving the thermal properties of lightweight concretes. Fedorov, V.A., [1990, p.33-34, rus] **44-4484**
- Concrete curing**
- Some recent problems with air-entrained concrete. Hover, K.C., [1989, p.67-72, eng] **44-133**
- Freeze-thaw durability of high strength silica fume concrete. Kashi, M.G.R., [1989, 144p., eng] **44-964**
- Curing of concrete in shelters. Turenne, R.G., [1985, p.53-63, eng] **44-1975**
- Curing control by microcomputer. Helland, S., [1985, p.83-94, eng] **44-1977**
- Experience in using microcomputer in curing control. Helland, S., [1985, p.236-248, eng] **44-1987**
- Concrete strength prediction by temperatures in curing. Lagolda, A.V., et al. [1985, p.263-280, eng] **44-1990**
- Curing and compressive strength of frost damaged concrete. Hasegawa, T., et al. [1985, p.281-287, eng] **44-1991**
- Monitoring concrete curing temperatures. Knott, A.W., et al. [1985, p.339-346, eng] **44-1996**
- Use of penetrating sealers on concrete bridge decks. Carter, P.D., [1989, p.292-302, eng] **44-2516**
- Strength of mortar and concrete during low temperature curing. Terada, Y., [1981, p.95-113, jpn] **44-3171**
- Temperature effects on early-age properties of concrete. Gardner, N.J., [1990, p.68-78, eng] **44-4242**
- Concrete durability**
- PCA research on high-strength concrete. Fiorato, A.E., [1989, p.44-50, eng] **44-88**
- Durability of concrete under simulated arctic conditions. Moukwa, M., et al. [1989, p.45-51, eng] **44-131**
- Freeze-thaw testing of coarse aggregate in concrete. Vogler, R.H., et al. [1989, p.57-66, eng] **44-132**
- Some recent problems with air-entrained concrete. Hover, K.C., [1989, p.67-72, eng] **44-133**
- Freeze-thaw deterioration of concrete pavements. Adkins, D.F., et al. [1989, p.97-104, eng] **44-685**
- Effect of early freezing on permeability of cement paste. Banthia, N., et al. [1989, p.119-132, eng] **44-686**
- Freeze-thaw resistance of concrete incorporating fly ash. Malhotra, V.M., et al. [1989, p.37-46, eng] **44-693**
- Determining moisture induced distress in asphalt concrete mixes. Heinicke, J.J., et al. [1987, 99p., eng] **44-784**
- Freeze-thaw durability of high strength silica fume concrete. Kashi, M.G.R., [1989, 144p., eng] **44-964**
- Durability of concrete containing fly ash. Tikalsky, P.J., et al. [1986, 158p., eng] **44-1275**
- Freezing and thawing durability of high strength silica fume concrete. Kashi, M.G.R., et al. [1989, p.138-148, eng] **44-1411**
- Thermal and durability considerations for composite steel/concrete sandwich structures. Gerwick, B.C., Jr., et al. [1988, p.73-83, eng] **44-1738**
- Test to determine concrete resistance to ice abrasion. Nawar, A.M., et al. [1988, p.401-426, eng] **44-1739**
- Resistance of concrete to ice abrasion - a review. Hoff, G.C., [1988, p.427-455, eng] **44-1740**
- Freeze-thaw tests of concrete in seawater. Moukwa, M., et al. [1989, p.360-366, eng] **44-1844**
- Lifetime of structures in cold regions. Oshima, T., et al. [1985, p.208-212, jpn] **44-2317**
- Thermal sprayed coatings on concrete surface and its properties. Futamata, M., et al. [1988, p.479-484, jpn] **44-2715**
- Effect of frozen subgrade on concrete pavement performance. Korfhage, G.R., [1988, 21p., eng] **44-2813**
- Pore structure of concrete and freezing vulnerability. Philleo, R.E., et al. [1989, 18p., eng] **44-2815**

- Durability of reinforced concrete in cold regions. Sakurai, H., et al. [1989, p.633-638, jpn] **44-2924**
- Concrete durability after partial Portland cement replacement by fly ash. Langan, B.W., et al. [1990, p.19-27, eng] **44-2999**
- Durability of concrete containing chloride-based accelerating admixtures. Rezanoff, T., et al. [1990, p.102-112, eng] **44-3002**
- Prediction of the service life of concrete structures. Vesikari, E., [1989, p.27-38, eng] **44-3339**
- Effect of specifications and inspection practices on concrete freeze-thaw resistance. Ward, M.A., et al. [1990, p.271-276, eng] **44-3703**
- Abrasion of concrete by ice in arctic sea structures. Huovinen, S., [1990, 110p. + appends., eng] **44-3770**
- Deterioration of concrete in cold sea waters. Moukwa, M., [1990, p.439-446, eng] **44-3898**
- Concretes for pile foundations in permafrost regions. Ivanov, F.M., et al. [1989, p.11-12, rus] **44-4539**
- Resistance and deformability of repeatedly frozen concrete. Kapkin, M.M., et al. [1989, p.21-22, rus] **44-4540**
- Concrete freezing**
- Effects of curing temperature and early freezing on the pull-out behavior of steel fibres. Banthia, N., et al. [1989, p.400-410, eng] **44-38**
- Frost resistance of concrete in arctic offshore structures. Leivo, M., [1989, 140p., fin] **44-54**
- PCA research on high-strength concrete. Fiorato, A.E., [1989, p.44-50, eng] **44-88**
- Durability of concrete under simulated arctic conditions. Moukwa, M., et al. [1989, p.45-51, eng] **44-131**
- Freeze-thaw testing of coarse aggregate in concrete. Vogler, R.H., et al. [1989, p.57-66, eng] **44-132**
- Some recent problems with air-entrained concrete. Hover, K.C., [1989, p.67-72, eng] **44-133**
- Frost resistance of concrete used by enterprises of the Yakut Coal System. Smertin, O.S., et al. [1987, p.19-20, rus] **44-326**
- Determining the length of freezing in cement under frost conditions. Kipko, E.I.A., et al. [1987, p.5-6, rus] **44-327**
- Effect of early freezing on permeability of cement paste. Banthia, N., et al. [1989, p.119-132, eng] **44-686**
- Rehabilitation of freeze-thaw damaged concrete lock walls. McDonald, J.E., [1987, 317p., eng] **44-1053**
- Effects of withholding mixing water and retempering on concrete properties. Anderson, S.M., et al. [1988, 129p., eng] **44-1057**
- Gas and water permeability of concrete for reactor buildings. Mills, R.H., [1986, 77p., eng] **44-1059**
- Freeze-thaw tests of concrete in seawater. Moukwa, M., et al. [1989, p.360-366, eng] **44-1844**
- Freeze-thaw repairs to Haweswater Dam. Barfoot, J., [1989, p.44-45, eng] **44-1885**
- Effects of cold emboldments on the temperature of fresh concrete. Suprenant, B.A., et al. [1985, p.308-318, eng] **44-1993**
- On frost damage of seashore concrete structure. Ayuta, K., et al. [1985, p.184-189, jpn] **44-2313**
- Expansion of concrete due to freezing and thawing. Koh, Y., et al. [1985, p.196-201, jpn] **44-2315**
- Deformation of concrete u-trough caused by ground freezing. Suzuki, T., et al. [1986, p.471-476, jpn] **44-2487**
- Study of mechanisms of frost action of concrete by acoustic emission method. Nemoto, T., et al. [1986, p.497-500, jpn] **44-2489**
- Frost and sea water resistance of concrete structures in frozen sea areas. Ayuta, K., [1986, p.501-506, jpn] **44-2490**
- Resistance to frost damage of concrete exposed at coastal zone. Takada, N., et al. [1986, p.507-512, jpn] **44-2491**
- Freeze thaw action on offshore concrete structures. Tsutsui, Y., et al. [1986, p.513-518, jpn] **44-2492**
- Properties of concrete at low temperature. Mizote, S., et al. [1986, p.519-524, jpn] **44-2493**
- Properties of concrete using of antifreezing admixtures. Watanabe, H., et al. [1986, p.525-530, jpn] **44-2494**
- Impact strength of concrete at low temperature. Sugiyama, T., et al. [1986, p.531-535, jpn] **44-2495**
- Coatings for concrete structures in cold region. Saeki, N., et al. [1986, p.536-541, jpn] **44-2496**
- Surface treatments for concrete. Husbands, T.B., et al. [1989, p.282-291, eng] **44-2515**
- Deterioration of concrete exposed to coastal zone. Takada, N., et al. [1987, p.455-460, jpn] **44-2561**
- Impact tensile strength of concrete under low temperature. Konno, S., et al. [1987, p.467-472, jpn] **44-2562**
- Freeze thaw deterioration of reinforced concrete. Sakurai, H., et al. [1987, p.473-476, jpn] **44-2563**
- Deterioration of reinforced concrete by freeze thaw. Sakurai, H., et al. [1988, p.491-496, jpn] **44-2716**
- Compressive strength and frost resistance of concrete. Ayuta, K., et al. [1988, p.502-507, jpn] **44-2718**
- Study on inner thermal activity of concrete under low temperature. Ayuta, K., et al. [1988, p.508-511, jpn] **44-2719**
- Use of antifreezing admixtures for concrete. Watanabe, H., et al. [1988, p.512-517, jpn] **44-2720**
- Pore structure of concrete and freezing vulnerability. Philleo, R.E., et al. [1989, 18p., eng] **44-2815**

- Frost-resistance of concrete. Clifton, J.R., 1990, 22p., eng. **44-2816**
- Strength of concrete with dealcalized antifreeze. Watanabe, H., et al., 1989, p.618-623, jpn. **44-2922**
- Acoustic measurement of freeze thaw damage to mortar. Shimada, H., et al., 1989, p.624-627, jpn. **44-2923**
- Durability of reinforced concrete in cold regions. Sakurai, H., et al., 1989, p.633-638, jpn. **44-2924**
- Strength of mortar and concrete during low temperature curing. Terada, Y., 1981, p.95-113, jpn. **44-3171**
- Phase transformations of water in hardened cement paste—a low-temperature DSC investigation. Beddoe, R.E., et al., 1990, p.236-242, eng. **44-3367**
- Frost damage to concrete structures in Hokkaido harbors. Ito, A., et al., 1989, p.241-246, jpn. **44-3634**
- Mathematical model of temperature changes in concrete pavements. Adkins, D.F., et al., 1990, p.349-358, eng. **44-3869**
- Concrete hardening**
- Antifreeze admixtures and hardening of concrete. Ivanova, O.S., et al., 1985, p.42-51, eng. **44-1974**
- Hardening of concrete made from sintered aluminous cements. Zachara, M., et al., 1985, p.172-181, eng. **44-1982**
- Calculation of temperature differences in concrete members. Hansen, P.F., et al., 1985, p.231-235, eng. **44-1986**
- Strength of concrete hardened at elevated temperatures. Jonasson, J.E., 1985, p.249-254, eng. **44-1988**
- Set time control studies of polymer concrete. Mathey, R.G., et al., 1989, 118p. + append., eng. **44-3338**
- Concrete heating**
- Heating of concrete by infra-red radiation. Penttila, V., 1985, p.65-82, eng. **44-1976**
- Use of heated fresh concrete. Kukko, H., 1985, p.147-159, eng. **44-1981**
- Electric preheating of concrete. Arben'ev, A.S., et al., 1985, p.319-330, eng. **44-1994**
- Energy saving methods of concrete heating as applied to winter construction. Li, A.I., et al., 1985, p.331-338, eng. **44-1995**
- Concrete pavements**
- Improving the prevention of icing of asphalt-concrete pavements. Mikhailov, A.V., et al., 1987, p.9-11, rus. **44-318**
- Cold-temperature characterization of polymer concrete. Bigl, S.R., 1986, 46p., eng. **44-396**
- Freeze-thaw deterioration of concrete pavements. Adkins, D.F., et al., 1989, p.97-104, eng. **44-683**
- Determining moisture induced distress in asphalt concrete mixes. Heinicke, J.J., et al., 1987, 99p., eng. **44-784**
- Fly ash concrete for highway use. Final report. Diamond, S., et al., 1988, 377p., eng. **44-957**
- Durability of concrete containing fly ash. Tikalsky, P.J., et al., 1986, 158p., eng. **44-1275**
- Freezing and thawing resistance of high-strength concrete. Final report. Philleo, R.E., 1986, 42p., eng. **44-1276**
- Verglinit pavement ice retardant. Augeri, F., 1987, 24p., eng. **44-1284**
- Experimental project No. 12: concrete pavement drainage rehabilitation. Kelly, R.C., 1989, p.74-75, eng. **44-1644**
- Pavement maintenance 1988. Allez, F., et al., 1988, 43p., eng. **44-2743**
- Effect of frozen subgrade on concrete pavement performance. Korfhage, G.R., 1988, 21p., eng. **44-2813**
- Mathematical model of temperature changes in concrete pavements. Adkins, D.F., et al., 1990, p.349-358, eng. **44-3869**
- Concrete piles**
- Concrete piles for pile foundations in permafrost regions. Ivanov, F.M., et al., 1989, p.11-12, rus. **44-4539**
- Concrete placing**
- See *also*: Winter concreting
- Concrete slabs**
- Polymer concrete-portland cement concrete composite members. Al-Negheimish, A.I., 1989, 365p., eng. **44-977**
- Concrete strength**
- Effects of curing temperature and early freezing on the pull-out behavior of steel fibres. Bantia, N., et al., 1989, p.400-410, eng. **44-38**
- PCA research on high-strength concrete. Fiorato, A.E., 1989, p.44-50, eng. **44-88**
- Polymer concrete-portland cement concrete composite members. Al-Negheimish, A.I., 1989, 365p., eng. **44-977**
- Effects of withholding mixing water and retempering on concrete properties. Anderson, S.M., et al., 1988, 129p., eng. **44-1057**
- Bond strength in reinforced concrete at low temperatures. Van der Veen, C., et al., 1989, p.573-582, eng. **44-1117**
- Ice abrasion of high-strength lightweight concretes. Hoff, G.C., 1989, p.583-590, eng. **44-1118**
- Mechanical properties of concrete at low temperature. Lee, G.C., et al., 1989, p.591-594, eng. **44-1119**
- Thermal and dynamic response of concrete at low temperature. Marshall, A.L., et al., 1988, p.519-526, eng. **44-1169**
- Freezing and thawing resistance of high-strength concrete. Final report. Philleo, R.E., 1986, 42p., eng. **44-1276**
- Fracture of concrete at cryogenic temperatures. Elices, M., et al., 1989, p.106-116, eng. **44-1736**
- Analytical models of local concrete-steel bond at low temperature. Huang, X.P., et al., 1989, p.159-171, eng. **44-1760**
- Strength of concrete hardened at elevated temperatures. Jonasson, J.E., 1985, p.249-254, eng. **44-1988**
- Concrete strength prediction by temperatures in curing. Lagolda, A.V., et al., 1985, p.263-280, eng. **44-1990**
- Curing and compressive strength of frost damaged concrete. Hasegawa, T., et al., 1985, p.281-287, eng. **44-1991**
- Electric preheating of concrete. Arben'ev, A.S., et al., 1985, p.319-330, eng. **44-1994**
- Study of mechanisms of frost action of concrete by acoustic emission method. Nemoto, T., et al., 1986, p.497-500, jpn. **44-2489**
- Frost and sea water resistance of concrete structures in frozen sea areas. Ayuta, K., 1986, p.501-506, jpn. **44-2490**
- Resistance to frost damage of concrete exposed at coastal zone. Takada, N., et al., 1986, p.507-512, jpn. **44-2491**
- Freeze thaw action on offshore concrete structures. Tsutsui, Y., et al., 1986, p.513-518, jpn. **44-2492**
- Properties of concrete at low temperature. Mizote, S., et al., 1986, p.519-524, jpn. **44-2493**
- Impact strength of concrete at low temperature. Sugiyama, T., et al., 1986, p.531-535, jpn. **44-2495**
- Sea ice-concrete abrasion test. Asai, Y., et al., 1986, p.564-571, jpn. **44-2500**
- Surface treatments for concrete. Husbands, T.B., et al., 1989, p.282-291, eng. **44-2515**
- Deterioration of concrete exposed to coastal zone. Takada, N., et al., 1987, p.455-460, jpn. **44-2561**
- Impact tensile strength of concrete under low temperature. Konno, S., et al., 1987, p.467-472, jpn. **44-2562**
- Freeze thaw deterioration of reinforced concrete. Sakurai, H., et al., 1987, p.473-476, jpn. **44-2563**
- Deterioration of reinforced concrete by freeze thaw. Sakurai, H., et al., 1988, p.491-496, jpn. **44-2716**
- Compressive strength and frost resistance of concrete. Ayuta, K., et al., 1988, p.502-507, jpn. **44-2718**
- Abrasion of concrete by ice that contains sand. Itoh, Y., et al., 1989, p.432-436, jpn. **44-2910**
- Strength of concrete with dealcalized antifreeze. Watanabe, H., et al., 1989, p.618-623, jpn. **44-2922**
- Concrete durability after partial Portland cement replacement by fly ash. Langan, B.W., et al., 1990, p.19-27, eng. **44-2999**
- Fatigue strength of concrete beams at low temperatures. Ohlsson, U., et al., 1990, p.195-203, eng. **44-3105**
- Evolution of fracture behaviour of saturated concrete in the low temperature range. Maturana, P., et al., 1990, p.827-834, eng. **44-3106**
- Strength of mortar and concrete during low temperature curing. Terada, Y., 1981, p.95-113, jpn. **44-3171**
- Set time control studies of polymer concrete. Mathey, R.G., et al., 1989, 118p. + append., eng. **44-3338**
- Prediction of the service life of concrete structures. Vesikari, E., 1989, p.27-38, eng. **44-3339**
- Abrasion of concrete by ice in arctic sea structures. Huovinen, S., 1989, p.39-49, eng. **44-3340**
- Properties of high-strength concrete at low temperatures. Marzouk, H.M., et al., 1990, p.167-171, eng. **44-3576**
- Frost damage to concrete structures in Hokkaido harbors. Ito, A., et al., 1989, p.241-246, jpn. **44-3634**
- Temperature effects on early-age properties of concrete. Gardner, N.J., 1990, p.68-78, eng. **44-4242**
- Improving the thermal properties of lightweight concretes. Fedorov, V.A., 1990, p.33-34, rus. **44-4484**
- Concrete piles for pile foundations in permafrost regions. Ivanov, F.M., et al., 1989, p.11-12, rus. **44-4539**
- Resistance and deformability of repeatedly frozen concrete. Kapkin, M.M., et al., 1989, p.21-22, rus. **44-4540**
- Concrete structures**
- Durability of concrete under simulated arctic conditions. Moukwa, M., et al., 1989, p.45-51, eng. **44-131**
- Concrete-steel composite structures. Kouhi, J., et al., 1989, 174p., fin. **44-464**
- Testing methods on sea ice-concrete sliding abrasion. Itoh, Y., et al., 1988, p.89-96, eng. **44-1131**
- Slope protection for gravel islands, Beaufort Sea. Hayley, D.W., et al., 1988, p.431-439, eng. **44-1160**
- Coefficient of friction between concrete and asphalt-mat. Takeda, H., et al., 1988, p.661-670, eng. **44-1181**
- On frost damage of seashore concrete structure. Ayuta, K., et al., 1985, p.184-189, jpn. **44-2313**
- Concrete abrasion due to a movement of ice sheet. Asai, Y., et al., 1985, p.190-195, jpn. **44-2314**
- Construction of mass concrete structures in icy seas. Inoue, K., 1986, p.491-496, jpn. **44-2488**
- Use of penetrating sealers on concrete bridge decks. Carter, P.D., 1989, p.292-302, eng. **44-2516**
- Design of a concrete structure in icy waters. Ohmae, H., et al., 1987, p.311-317, jpn. **44-2544**
- Precast concrete snow shelters. Wakabayashi, O., 1987, p.433-438, jpn. **44-2558**
- Abrasion of concrete structures due to a movement of sea ice sheet. Itoh, Y., et al., 1988, p.297-305, jpn. **44-2697**
- Steel and concrete in arctic structures. Maddock, W.J., et al., 1984, p.O/1-O/9, eng. **44-3463**
- Concretes**
- Winter concreting with low-cement concretes. Kuz'min, K.K., et al., 1989, p.37-40, rus. **44-385**
- Cold-temperature characterization of polymer concrete. Bigl, S.R., 1986, 46p., eng. **44-396**
- Effects of withholding mixing water and retempering on concrete properties. Anderson, S.M., et al., 1988, 129p., eng. **44-1057**
- Gas and water permeability of concrete for reactor buildings. Mills, R.H., 1986, 77p., eng. **44-1059**
- Highly frost-resistant cement concretes. Shefkin, A.E., et al., 1989, 127p., rus. **44-1726**
- Intensive concrete technology. Solomatov, V.I., et al., 1989, 261p., rus. **44-1754**
- Frost resistant concretes from cast mixes with polyfunctional modifiers. Rozental', N.K., et al., 1989, p.21-22, rus. **44-4538**
- See *also*: Bituminous concretes; Cellular concretes; Lightweight concretes; Precast concretes; Prestressed concretes; Reinforced concretes
- Condensation**
- Winter frost at Viking Lander 2 site. Svitek, T., et al., 1990, p.1495-1510, eng. **44-2295**
- Condensation nuclei**
- Study on frost formation. Saito, H., et al., 1984, p.76-88, eng. **44-1335**
- Correlation among combustion effluent species at Barrow. AK. Hansen, A.D.A., et al., 1989, p.283-299, eng. **44-2181**
- Martian dust particles as condensation nuclei: mineralogical factors. Gooding, J.L., 1986, p.56-74, eng. **44-2396**
- Computational study of formation dynamics and structure of amorphous ice condensates. Zhang, Q., et al., 1990, p.5004-5016, eng. **44-3275**
- Condensation nuclei profile measurements to 31 km in the Arctic. Hofmann, D.J., 1990, p.357-360, eng. **44-3422**
- Atmospheric denitrification via falling ice particles. Wolfy, S.C., et al., 1990, p.449-452, eng. **44-3426**
- Conduction**
- Heat conduction in snow. Yen, Y.C., 1989, p.21-32, eng. **44-827**
- Conductivity**
- See *also*: Electrical resistivity; Superconductivity; Thermal conductivity
- Conferences**
- See *also*: Meetings
- Conservation**
- See *also*: Environmental impact
- Consolidation**
- See *also*: Settlement (structural); Thaw consolidation
- Construction**
- Reinforcing and stabilizing buildings on sagging loess soils. Gilman, I.A.D., 1989, 159p., rus. **44-9**
- Design and construction of drill piles in thawing permafrost. Rastegayev, I.K., ed., 1988, 31p., rus. **44-192**
- Behaviour of two kinds of ground freezing: laboratory tests and case histories. Thimus, J.F., et al., 1989, p.577-578, eng. **44-942**
- Deformation characteristics of thawing permafrost soils. Ponomarev, V.D., et al., 1989, p.10-13, eng. **44-1258**
- Thermodynamic model of floating ice platform construction. Szilder, K., et al., 1988, p.225-233, eng. **44-1419**
- Handbook of soil mechanics, Vol.3. Kézi, A., et al., 1988, 363p., eng. **44-1477**
- Protecting the environment near a railroad line construction site in a mountain pass. Rubtsov, E.A., et al., 1989, p.67-77, rus. **44-1783**
- Building structures on swelling clayey soils. Sorochan, E.A., 1989, 309p., rus. **44-2404**
- Evaluating pre-winter soil preparation for reclamation construction. Kaliuzhnyi, I.I., et al., 1987, p.24-27, rus. **44-2615**
- Construction in water: manual. Godes, E.G., et al., 1989, 527p. (Pertinent p.97-110, 439-448), rus. **44-3360**
- Proceedings of the Fifth Canadian Permafrost Conference, 1989. 1990, 424p., eng. **44-3635**
- Long-term trends in studies of engineering constructions and ice interaction process. Likhomanov, V.A., et al., 1990, p.114-119, eng. **44-4077**
- Geosynthetic reinforcement of paved road embankments on polygonal ground. Kinney, T.C., et al., 1990, p.102-112, eng. **44-4490**
- See *also*: Cold weather construction; Modular construction
- Construction equipment**
- Design and construction of drill piles in thawing permafrost. Rastegayev, I.K., ed., 1988, 31p., rus. **44-192**
- Planing machines for building runways on ice. Mellor, M., 1989, 8p. + attachments, eng. **44-225**

Construction equipment (cont.)

- Leitner company's snow road equipment. [1989, p.57-61, ita] 44-910

Construction materials

- Concrete-steel composite structures. Kouhi, J., et al. [1989, 174p., fin] 44-464
- Durability of thermoplastic road marking materials. Isacson, U., et al. [1988, 51p., eng] 44-677
- Mechanics of damage in rate-sensitive construction materials. Sunder, W.S., et al. [1987, 120p., eng] 44-719

- Proceedings. Vol.3: Materials technology. [1989, 739p., eng] 44-1115

- Changes in the properties of soil linings for canal seepage control. Jones, C.W., [1987, 72p., eng] 44-1229

- Fiber composite materials in an arctic environment. Dutta, P.K., [1989, p.216-225, eng] 44-1412

- Simple and economical thermal conductivity measurement system. Atkins, R.T., [1989, p.108-116, eng] 44-1648

- Information management-state of the art—the SHRP LTPP experience. Clarke, D.B., et al. [1989, p.118-127, eng] 44-1649

- State-of-the-art stress, strain and deflection measurements. Ullidtz, P., et al. [1989, p.148-161, eng] 44-1653

- SASW method in determining moduli of pavements. Nazarian, S., [1989, p.210-225, eng] 44-1659

- SHRP prototype procedures for calibrating falling weight deflectometers. Richter, C.A., et al. [1989, p.296-303, eng] 44-1665

- Minnesota cold regions pavement test facility. Newcomb, D.E., et al. [1989, p.360-369, eng] 44-1671

- Construction of fully instrumented test pavements in North Carolina. Stubstad, R.N., et al. [1989, p.394-401, eng] 44-1673

- Weatherability of laminar roofing materials in Hokkaido. Inoue, S., et al. [1986, p.223-228, jpn] 44-2464

- Application of new metal "titanium" for winter living. Kusamichi, H., [1986, p.235-241, jpn] 44-2465

- Distribution of building materials exposed to acid rain. Merritt, C.J., et al. [1989, 156p., eng] 44-3015

- Cross-syntheses for road embankments in permafrost. Kinney, T.C., [1986, 53p., eng] 44-3408

- Steel and concrete in arctic structures. Maddock, W.J., et al. [1984, p.O/I-O/9, eng] 44-3463

- Cryogenic engineering (problems of development). Filin, N.V., [1990, p.10-16, rus] 44-4340

- Effects of temperature and magnetic field on structures. Dzenzerskii, V.A., et al. [1990, p.81-86, rus] 44-4355

- Low-temperature strengthening of materials. Ostash, O.P., et al. [1990, p.176-181, rus] 44-4376

- Cyclic strength of BrB2 alloy at temperatures of 293 and 77 K. Samarin, V.K., [1990, p.210-213, rus] 44-4383

- Effect of low temperatures on deformation of construction materials. Skripnik, I.U.D., et al. [1990, p.224-229, rus] 44-4387

- Strength of materials and welded parts of structures in cold weather. Khanukhov, Kh.M., et al. [1990, p.237-243, rus] 44-4390

- See *falsoy*: Bituminous concretes; Bricks; Cellular concretes; Cellular materials; Cements; Ceramics; Concretes; Ice (construction material); Insulation; Masonry; Mortars; Panels; Plastics; Plates; Snow (construction material)

- Construction sites**
See *falsoy*: Site surveys

- Construction standards**
See *falsoy*: Building codes

- Containers**
See *falsoy*: Tanks (containers)

- Continental drift**
Hypothesis of the origin of ice ages based on the drift of continents in relation to the poles of the Earth. Iaroslavtsev, G.Z., [1989, p.239-240, rus] 44-361

- Continental ice**
See *falsoy*: Land ice

- Continuous permafrost**
Terrain evaluation and pipeline construction in the Canadian North. Crampton, C.B., [1988, p.19-28, eng] 44-414

- Prediction of the effect of a flare on permafrost. Rubtsov, N.A., et al. [1986, p.33-37, eng] 44-1729

- Ice-wedge cracks, western Arctic coast. McKay, J.R., [1989, p.365-368, eng] 44-1873

- Polygonal peat plateaus in permafrost, Devon I. Somr, C.H., et al. [1990, p.11-16, eng] 44-3637

- Slope disturbances on permafrost. Woo, M.K., et al. [1990, p.175-180, eng] 44-3660

- Contrails**
See *falsoy*: Condensation trails

- Convection**
Iceing of aircraft (Final report). Gayet, J.F., [1986, 15p., fre] 44-708

- Rapid frazil ice production in coastal polynya. Ushio, S., et al. [1989, p.117-126, eng] 44-1809

- Binary solidification in a vertical channel. Bennon, W.D., et al. [1989, p.706-712, eng] 44-1841

- Melting of ice-aluminum balls system. Chellaiah, S., et al. [1990, p.222-231, eng] 44-3249

- Convective heat transfer research using a cryogenic environment. Clausen, A.M., [1990, p.335-340, eng] 44-3575

- Effect of convection on plug formation during cryogenic pipe freezing. Burton, M.J., et al. [1989, p.121-126, eng] 44-3700

- Inclusion of sensible heating in convective parameterization applied to lake-effect snow. Ellenton, G.E., et al. [1979, p.351-365, eng] 44-3748

- Analysis of melting in the presence of natural convection in the melt region. Sparrow, E.M., et al. [1977, p.520-526, eng] 44-3749

- Natural convection melting of a frozen porous medium. Chellaiah, S., et al. [1990, p.887-899, eng] 44-3783

- Topographically induced convective snowbands over the Baltic Sea and their precipitation distribution. Andersson, T., et al. [1990, p.299-312, eng] 44-3906

- Thermohaline structure, water circulation and deep winter convection in the Greenland Sea stationary gyre. Alekseev, G.V., et al. [1990, p.87-88, eng] 44-4071

- Analysis of melting at the wall in laminar flow in a cylindrical channel. Chun, M.H., et al. [1990, p.443-454, eng] 44-4279

- Mass transfer coefficient for ice sublimation under forced convection. Sakly, M., et al. [1989, p.633-644, fre] 44-4417

- Cooling**
Technical and symposium papers. [1989, 1349p., eng] 44-440

- Physicochemical and mechanical properties of saline soils during temperature change. Chen, X.B., et al. [1989, p.234-245, eng] 44-1465

- Thermal stabilization of permafrost with thermosyphons. Zarling, J.P., et al. [1990, p.323-328, eng] 44-2242

- Method to control paving operations in marginal weather. White, S., et al. [1988, p.120-153, eng] 44-2838

- Initial cooling of pavements and the development of pavement cooling charts. White, S., et al. [1990, p.94-101, eng] 44-3001

- See *falsoy*: Air conditioning; Cryogenics; Ice refrigeration; Liquid cooling; Radiant cooling; Refrigeration

- Cooling rate**
Fuel holdup and component diffusivity in a cooled cylindrical tank. Leo, A., et al. [1989, p.465-469, eng] 44-39

- Effects of subcooling on melting on a vertical wall. Okada, M., et al. [1988, p.56-68, eng] 44-688

- Compositional effects on the low temperature pumpability of engine oils. Alpine, G.A.M., et al. [1987, p.7-79, eng] 44-1193

- Crystallization of water in cooled solutions. Kazarova, E.B., et al. [1987, p.1656-1658, rus] 44-2425

- Cooling systems**
Advanced energy transmission fluids for district heating and cooling. Kasza, K.E., et al. [1987, p.202-211, eng] 44-15

- Performance of an ice/water slurry based district cooling system. Knodel, B.D., [1987, p.274-277, eng] 44-16

- Crystal ice slurries for district cooling systems. Sukhwil, R.N., et al. [1987, p.444-448, eng] 44-17

- Potential of slush ice district cooling. Metz, P.D., et al. [1987, p.449-459, eng] 44-18

- Direct freeze ice slurry system testing. Knodel, B.D., [1988, p.86-93, eng] 44-19

- Diurnal ice storage cooling systems in Army facilities. Sohn, C.W., et al. [1989, p.1079-1085, eng] 44-442

- Optimal control for cool storage. Spethmann, D.H., [1989, p.1189-1193, eng] 44-444

- Concerns over cooling. [1988, p.62-68, eng] 44-752

- Ice cools office-hotel complex. Gilbertson, T.A., [1989, p.47-52, eng] 44-1091

- Proceedings of the 80th annual conference, Virginia Beach, June 18-21, 1989. [1989, 516p., eng] 44-2000

- Phase II: direct freeze ice slurry district cooling. Knodel, B.D., [1989, p.240-244, eng] 44-2001

- Crystal ice generation in district heating and cooling. Graham, T., et al. [1989, p.246-258, eng] 44-2002

- Influences of ice slurry characteristics. Larkin, B., et al. [1989, p.340-351, eng] 44-2003

- Ice slurry generator for district cooling. Paradis, M.A., et al. [1989, p.392-404, eng] 44-2004

- Control of brine-type ice storage systems. MacCracken, C.D., [1985, p.32-43, eng] 44-2014

- Characteristics of the starter in a two-phase thermosiphon. Shirikhin, I.U.N., [1989, p.114-118, rus] 44-2161

- Experience with foundations stabilized with thermosyphons. Zarling, J.P., et al. [1990, p.365-370, eng] 44-3683

- Performance of heat pump chilled foundations. Goodrich, L.E., et al. [1990, p.409-418, eng] 44-3689

- Performance of an ice-in-tank diurnal ice storage cooling system at Fort Stewart, GA. Sohn, C.W., et al. [1990, 35p., eng] 44-4462

- See *falsoy*: Air conditioning; Cryogenics; Refrigeration

- Cooling towers**
Analysis of the possibility of winter concreting of a cooling tower. Kazimierz, B., [1985, p.354-361, eng] 44-1998

- Cooperation**
See *falsoy*: International cooperation

Core analysis

- See *falsoy*: Drill core analysis

Core samplers

- See *falsoy*: Ice coring drills

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- See *falsoy*: Drill core analysis; Ice cores

Coring

- Measuring the chemical composition of snow cores. Taylor, H.E., [1987, p.55-69, eng] 44-78

- Cone penetrometer study of Chukchi Sea floor. Cox, J.C., et al. [1986, 200p., eng] 44-884

- Ice Island sampling and investigation of sediments—Field report 1988. Mosher, D.C., et al. [1988, 42p., eng] 44-2770

Cornices

- See *falsoy*: Snow cornices

Corona discharge

- See *falsoy*: Electric corona

Correlation

- Arctic sea ice characteristics inferred from satellite and buoy data. Zwary, R.G., et al. [1989, p.35-44, eng] 44-295

- Western Snow Conference, 57th, 1989. [1989, 150p., eng] 44-497

- Snow line estimates derived from aerial surveys. Allen, M.W., et al. [1989, p.145-148, eng] 44-518

- Problem of geomorphological correlation. Timofeev, D.A., ed. [1989, 253p., rus] 44-2048

- Petrographic correlation in paleogeological studies. Khazaradze, R.D., [1989, p.62-65, rus] 44-2049

- Geomorphological criteria for correlating moraines of various ages. Borisov, B.A., et al. [1989, p.78-85, rus] 44-2050

- Correlating marginal ice zones, lake shore formations, and river terraces. Raukas, A.V., et al. [1989, p.208-217, rus] 44-2051

- Newfoundland ice extent and the solar cycle from 1860 to 1988. Hill, B.T., et al. [1990, p.5385-5394, eng] 44-3280

- Corrosion**
Corrosion protection of arctic offshore structures. Final report. Sackinger, W.M., et al. [1985, 183p., eng] 44-855

- Weld-zone corrosion of steel plates for icebreakers. Brigham, R.J., et al. [1988, p.311-321, eng] 44-1024

- Alaska starts repairing miles of corroded pipes. Bloomberg, R., [1990, p.35-36, eng] 44-3048

- Corrosion data analysis for development of engineering criteria for arctic structures. Brown, T.G., et al. [1989, 203p. + Appends., eng] 44-3354

- Arctic corrosion and its effects on the strength of icebreakers. Brown, T.G., et al. [1990, p.S/1-S/11, eng] 44-3481

- Cosmic dust**
Ice chronology at meteorite stranding sites. Fireman, E.L., [1988, p.49-50, eng] 44-1690

- Search for the Tunguska event in the antarctic snow. Rocchia, R., et al. [1988, p.156-157, eng] 44-1747

- Cost analysis**
Small boat harbor Larsen Bay, Alaska. Draft detailed project report with environmental assessment. [1989, 153p. + Appends., eng] 44-439

- Ice storage can reduce the construction cost of office buildings. Pearson, F.J., [1989, p.1308-1316, eng] 44-448

- Analysis of snow water equivalent data used in flood forecasting. Carroll, T.R., [1989, p.138-140, eng] 44-516

- Snow budgets stable, PR efforts up, survey shows. Kuennen, T., [1989, p.40-46, 58, eng] 44-767

- Ice cools office-hotel complex. Gilbertson, T.A., [1989, p.47-52, eng] 44-1091

- CCGS Louis S. St. Laurent mid-life modernization design studies. Kendrick, A., et al. [1988, p.129-135, eng] 44-1203

- Cost evaluation of anti-avalanche measures. Blagoveshchenski, V.P., et al. [1989, p.88-100, rus] 44-1391

- Proceedings of the Third All-Union Conference on Avalanches, 1986. [1989, 247p., rus] 44-1562

- Cost effectiveness of avalanche countermeasures in the Apatit quarries. Chmerova, G.V., [1989, p.14-19, rus] 44-1564

- Cost effectiveness of anti-avalanche engineering structures. Zhigul'skii, A.A., [1989, p.19-28, rus] 44-1565

- Cost-benefit analysis of snow removal. Matsuda, M., [1985, p.259-263, jpn] 44-2325

- Effect of studded tires on the costs of snow removal. Satoh, K., et al. [1986, p.639-646, jpn] 44-2511

- Simulation of district heating systems for piping design. Phetteplace, G., [1989, 27p., eng] 44-3925

- Optimal sizing of district heating pipes. Phetteplace, G., [1989, 25p., eng] 44-3926

- See *falsoy*: Economic analysis

- Countermeasures**
Surface-blowing anti-icing technique for aircraft surfaces. Tabrizi, A.H., et al. [1989, p.354-359, eng] 44-4

- Preventive heating of power lines of direct current contact nets. Golev, V.A., [1988, 77p., rus] 44-70

- Improving the prevention of icing of asphalt-concrete pavements. Mikhailov, A.V., et al. [1987, p.9-11, rus] 44-318
- Ice reception suits roadheader down to the ground. Weber, B.H., [1989, p.19-21, eng] 44-322
- Avalanches and avalanche prevention. Fersman, A.E., [1989, p.230-234, rus] 44-359
- Means and methods of preventing the freezing of loose materials. Terekhin, L.N., et al. [1989, p.28-31, rus] 44-384
- Mechanics of river bank erosion and protection. Zimmermann, C., [1989, p.289-295, eng] 44-423
- Prevention of frost action on pile foundations. Sheng, H.F., [1989, p.44-52, chi] 44-649
- Effect of early freezing on permeability of cement paste. Baninis, N. et al. [1992, p.119-132, eng] 44-686
- Analyzing the physical effect of actions on hail processes. Ashabokov, B.A., et al. [1989, p.133-137, rus] 44-820
- Corrosion protection of arctic offshore structures. Final report. Sackinger, W.M., et al. [1985, 183p., eng] 44-855
- Water and sewer service connections in permafrost areas of the Northwest Territories. Wilson, C.E., et al. [1989, p.188-196, eng] 44-1027
- How to reduce winter ice damage to marinas. Wortley, C.A., [1985, 2p., eng] 44-1064
- Floating docks: today's choice for the Great Lakes. Wortley, C.A., [1987, 2p., eng] 44-1066
- On the freezing of sprayed sea water to produce artificial sea ice. Sackinger, W.M., et al. [1988, p.581-590, eng] 44-1175
- Designing for extreme cold. Raines, A., [1947, p.103-106, eng] 44-1186
- Cost evaluation of anti-avalanche measures. Blagoveshchenski, V.P., et al. [1989, p.88-100, rus] 44-1391
- Drying cut peat in a frozen deposit. Gamaiunov, N.I., et al. [1989, p.19-24, rus] 44-1401
- Proceedings of the Third All-Union Conference on Avalanches, 1986. [1989, 247p., rus] 44-1562
- 50 years of the first anti-avalanche service of the USSR. Zizun, I.U., [1989, p.6-14, rus] 44-1563
- Cost effectiveness of avalanche countermeasures in the Apatit quarries. Chmerova, G.V., [1989, p.14-19, rus] 44-1564
- Cost effectiveness of anti-avalanche engineering structures. Zhigul'skii, A.A., [1989, p.19-28, rus] 44-1565
- Protecting the city of Petropavlovsk-Kamchatski from avalanches. Shaikhutdinov, R.Sh., [1989, p.28-33, rus] 44-1566
- Prospects of protecting Magadan district highways from avalanches. Bulgakov, A.B., et al. [1989, p.33-36, rus] 44-1567
- Snow cover and avalanche parameters for designing anti-avalanche structures. Volkovskii, K.F., et al. [1989, p.40-45, rus] 44-1569
- Influence of heavy fractions on low-temperature properties of diesel fuels. Tumanian, B.P., et al. [1989, p.39-41, eng] 44-1680
- Threats to the Arctic environment. Stokke, O.S., [1989, p.21-27, eng] 44-1767
- Charkaya Basin—geographical proving ground of the BAM zone. Naprasnikov, A.T., et al. [1987, 98p., rus] 44-1875
- Ice-man cometh. McClellan, J.M., [1988, p.56-60, eng] 44-2095
- Evaluation of a water jet barrier in ice conditions. Lapierre, F., [1989, p.8-11, eng] 44-2429
- Pavement maintenance 1988. Allez, F., et al. [1988, 43p., eng] 44-2743
- Reduction of low-temperature cracking in asphalt pavement through the use of large stone mixtures. Davis, R.L., [1988, p.42-55, eng] 44-2836
- Low temperature benefits of polymer modified asphalts. King, G.N., et al. [1988, p.198-216, eng] 44-2839
- Association between ice nuclei and fracture interfaces in sucrose-water glasses. Williams, R.J., et al. [1989, p.103-107, eng] 44-2945
- Use of off-road vehicles and mitigation of effects in Alaska permafrost environments: a review. Slaughter, C.W., et al. [1990, p.63-72, eng] 44-3049
- Air craft operation in the Arctic. Meanor, R.W., [1989, p.56-84, eng] 44-3138
- Corrosion data analysis for development of engineering criteria for arctic structures. Brown, T.G., et al. [1989, 203p. + Appends., eng] 44-3354
- Ice. Collins, R.L., [1989, p.43-47, eng] 44-3583
- Winter chaos—can we buy our way out of it. Hunt, R.D., et al. [1988, p.429-434, eng] 44-3929
- Method for controlling stationary frost heaving. Akagawa, S., [1990, p.1-8, eng] 44-3948
- Alternative strategies for oil spill combat in arctic waters. Sveum, P., [1990, p.237-250, eng] 44-4096
- See *also*: Bank protection (waterways); Dust control; Evaporation control; Flood control; Frost protection; Hail prevention; Ice prevention; Ice removal; Landslide control; Protection; Slope protection
- Covering**
- Jacket structures in the arctic and subarctic seas. Kimura, T., et al. [1988, p.1-6, eng] 44-3347
- Analysis of the composite ice wall. Corder, P.R., et al. [1990, p.21-39, eng] 44-3798
- Crack propagation**
- Sound generated by propagating cracks in sea ice. Farmer, D.M., et al. [1989, p.1489-1500, eng] 44-136
- Failure maps for ice. Hallam, S.D., et al. [1988, p.45-55, eng] 44-1128
- Crack propagation on floating structures in ice-infested waters. Swamidas, A.S.J., et al. [1988, p.527-537, eng] 44-1170
- Fractography of ice. Schulson, E.M., et al. [1989, p.1193-1194, eng] 44-1511
- Notch acuity effects on the fracture toughness of freshwater ice. Wei, Y., et al. [1990, p.253-257, eng] 44-2232
- Crack nucleation due to elastic anisotropy in polycrystalline ice. Shyam Sunder, S., et al. [1990, p.29-47, eng] 44-3538
- Fracture and breakup of river ice cover. Beltaos, S., [1990, p.173-183, eng] 44-3702
- Double torsion test applied to fine grained and freshwater columnar ice and sea ice. Parsons, B.L., et al. [1988, 12p., eng] 44-3950
- Resistance of welded joints to crack propagation at low temperatures. Bondarovich, L.A., et al. [1990, p.38-43, rus] 44-4346
- Crack propagation in aluminum materials at low temperature. Grabar, I.G., [1990, p.69-73, rus] 44-4352
- Prevention of crack formation in T-joints during welding in winter. Savvinov, I.T., [1990, p.202-206, rus] 44-4381
- Effect of phase conversion on viscosity of steels. Shternin, S.L., et al. [1990, p.243-247, rus] 44-4391
- Cracking (fracturing)**
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- Flexible pavement layer moduli from Dynaflect and FWD deflections. Badu-Tweneboah, K., et al. [1989, p.245-277, eng] 44-978
- Gas and water permeability of concrete for reactor buildings. Mills, R.H., [1986, 77p., eng] 44-1059
- Speculations on the origin of low frequency Arctic Ocean noise. Dyer, I., [1988, p.513-532, eng] 44-1707
- Observation of the sound radiated by individual ice fracturing events. Stein, P.J., [1988, p.533-544, eng] 44-1708
- Arctic Ocean noise generation due to pack ice kinematics and heat fluxes. Lewis, J.K., et al. [1988, p.565-581, eng] 44-1711
- Use of penetrating sealers on concrete bridge decks. Carter, P.D., [1989, p.292-302, eng] 44-2516
- Reduction of low-temperature cracking in asphalt pavement through the use of large stone mixtures. Davis, R.L., [1988, p.42-55, eng] 44-2836
- Cracking mechanisms of asphalt concrete pavements at low service temperatures. Roque, R., et al. [1988, p.56-75, eng] 44-2837
- Low temperature benefits of polymer modified asphalts. King, G.N., et al. [1988, p.198-216, eng] 44-2839
- Study of low temperature transverse cracking in Alberta. Palsat, D.P., [1988, p.218-235, eng] 44-2840
- Fatigue strength of concrete beams at low temperatures. Ohlsson, U., et al. [1990, p.195-203, eng] 44-3105
- Evolution of fracture behaviour of saturated concrete in the low temperature range. Maturana, P., et al. [1990, p.827-834, eng] 44-3106
- Use of soft grade asphalts in airfields and highway pavements in cold regions. Janoo, V.C., [1990, 47p., eng] 44-4059
- Cryogenic engineering (problems of development). Filin, N.V., [1990, p.10-16, rus] 44-4340
- Effects of temperature and magnetic field on structures. Dzenzerskii, V.A., et al. [1990, p.81-86, rus] 44-4355
- Crack resistance of steels using physical parameters of viscosity. IUrovskikh, V.V., et al. [1990, p.257-261, rus] 44-4394
- Elasto-plastic fracture characterization of paving materials at low temperatures. Mahboub, K., [1990, p.210-218, eng] 44-4471
- Steel critical brittleness temperature derived from specimen cracking. Zvezdin, I.U.I., et al. [1990, p.486-488, eng] 44-4496
- Determination of critical brittleness temperatures in crack resistance testing. Karzov, G.P., et al. [1990, p.489-493, eng] 44-4497
- Cracks**
- Cyclic endurance of steels at reduced temperatures. Zorin, E.E., et al. [1989, p.612-613, eng] 44-530
- See *also*: Ice cracks
- Creep**
- Elastic visco-plastic modelling of a frozen sand using equivalent time. Yin, J.H., et al. [1990, p.133-139, eng] 44-3799
- Creep and mechanical performance of polymers at low temperatures. Askadskii, A.A., et al. [1990, p.25-28, rus] 44-4343
- See *also*: Ice creep; Rheology; Snow creep; Soil creep
- Crevasse detection**
- Remote sensing techniques by the Federal Republic of Germany. Kohnen, H., [1989, p.24-26, eng] 44-3445
- Crevasse**
- Density and crevasse of glaciers. Ivanov, A.I., [1989, p.140-143, rus] 44-350
- Crevasse, seracs, moulins and cavities under glaciers. Reynaud, L., [1989, p.8-13, eng] 44-1243
- Crevasse deformation and examples from Ice Stream B. Antarctica. Vornberger, P.L., et al. [1990, p.3-10, eng] 44-3715
- Crossings**
- See *also*: Bridges; Ice crossings; River crossings
- Crude oil**
- Natural oil seeps in the Alaskan marine environment. Final report. Becker, P.R., et al. [1988, 123p., eng] 44-700
- Differential-scanning calorimetry study of low-temperature properties of oils and gases. Shrivastava, T.C., et al. [1989, p.179-183, eng] 44-2276
- Acute toxicity of petroleum hydrocarbons to the arctic littoral mysid *Mysis oculata* (fabricius). Riebel, P.N., et al. [1989, p.161-185, eng] 44-3800
- Catalogue of oil properties. Bobra, M.A., et al. [1986, 284p. + Appends., eng] 44-3961
- Impact of ice on petroleum exploration in the Barents Sea. Loset, S., et al. [1990, p.119-128, eng] 44-4078
- Main factors of regional oil-and-gas-bearing potential in the Soviet West Arctic. Ostistyl, B.K., et al. [1990, p.359-361, eng] 44-4107
- Refinery/additive technologies and low temperature pumpability. Rossi, A., [1988, p.3.970-3.980, eng] 44-4246
- Crustal structure**
- See *also*: Earth crust; Tectonics
- Cryobiology**
- AMERIEZ 1986: activities on board the R/V *Melville* and USCGC *Glacier*. Sullivan, C.W., et al. [1989, p.167-169, eng] 44-20
- AMERIEZ 1986: responses of under-ice fauna to low temperature and stress. Aarset, A.V., [1989, p.170-171, eng] 44-21
- AMERIEZ 1986: oceanic factors affecting seabird occurrence. Ainley, D.G., et al. [1989, p.172-173, eng] 44-22
- AMERIEZ 1986: phytoplankton at the Weddell Sea ice edge. Fryxell, G.A., et al. [1989, p.173-175, eng] 44-23
- AMERIEZ 1986: microzooplankton in the ice-edge zone. Garrison, D.L., et al. [1989, p.175-176, eng] 44-24
- AMERIEZ 1986: acoustic assessment of krill (*Euphausia superba*, Dana). Macaulay, M.C., et al. [1989, p.176-178, eng] 44-25
- AMERIEZ 1986: nutrients and phytoplankton biomass in the ice-edge zone. Nelson, D.M., et al. [1989, p.182-183, eng] 44-27
- AMERIEZ 1986: photoadaptation of phytoplankton and light limitation of primary production. SoofHoo, J.B., et al. [1989, p.185-187, eng] 44-28
- AMERIEZ 1986: microbial growth and metabolism in the marginal ice zone. Sullivan, C.W., et al. [1989, p.188-190, eng] 44-29
- Neutral lipid content in sea-ice microalgae in McMurdo Sound. Priscu, J.C., et al. [1989, p.191-193, eng] 44-30
- Effect of temperature on nitrogen and carbon metabolism in sea-ice microalgae. Priscu, J.C., et al. [1989, p.196-198, eng] 44-31
- Photosynthetic pigments in sea-ice communities in McMurdo Sound. Palmisano, A.C., et al. [1989, p.198-199, eng] 44-32
- Antifreeze glycoproteins: physical, chemical, and functional properties. Feeney, R.E., et al. [1989, p.215-217, eng] 44-33
- Springtails on and in snow. Brummer-Korvenkontio, M., et al. [1988, p.119-121, rus] 44-71
- Prolonged anabiosis for sporogenous bacteria in the interior of the Central Antarctic Glacier. Abyzov, S.S., et al. [1989, p.566-571, eng] 44-1473
- Algae concentrated by frazil ice. Garrison, D.L., et al. [1989, p.313-316, eng] 44-1489
- Weddell Sea and Antarctic Peninsula biota in pack ice. Garrison, D.L., et al. [1989, p.211-219, eng] 44-1864
- Arthrobacter isolates from soils of Schirmacher Ponds. Shivaji, S., et al. [1989, p.225-229, eng] 44-1865
- Pigment data from ice cores near Showa Station, Mar. 1983-Jan. 1984. Watanabe, K., et al. [1990, 88p., eng] 44-3357
- Microbial ecosystems of Antarctica. Vincent, W.F., [1988, 304p., eng] 44-3711
- Cryogenic processes**
- See *also*: Geocryology
- Cryogenic soils**
- Relic cryoxerophytic communities of the western Chukotski peninsula and their soils. Kozitskaia, L.T., et al. [1985, p.148-153, eng] 44-279
- Groundwater regime and runoff in forests and swamps in Siberia. Konstantinov, V.D., [1986, p.10-16, eng] 44-316
- Mountain meadow soils of alpine lichen wastelands, northern Caucasus. Makarov, M.I., [1985, p.71-73, eng] 44-683
- Pedogenic gradients in arctic and alpine soils. Birkeland, P.W., et al. [1989, p.193-204, eng] 44-697

Cryogenic soils (cont.)

- Morphogenetic classification of tidal marsh pans in northern Quebec. Fournier, A., et al, 1987, p.47-64, frej 44-897
- Recovery of mountain tundra with unsorted circles after a fire. Pavlov, B.A., 1989, p.51-59, eng 44-1002
- Cryopediments—important landforms in contemporary and Pleistocene permafrost environments. Czudek, T., 1988, p.161-173, gerj 44-1028
- Physical processes in peat bogs. Lishtvan, I.I., et al, 1989, 284p., rusj 44-1034
- Mechanisms of change in clayey soils during vibration. Kutegin, V.N., 1989, 141p., rusj 44-1035
- Hydrothermal problems of frozen soils. Savvinov, D.D., ed, 1988, 126p., rusj 44-1958
- Hydrothermal regime of frozen pale yellow soils during irrigation. Sleptsov, V.I., et al, 1988, p.18-30, rusj 44-1960
- Moisture regime of cultivated frozen flood-plain meadow soils. Bashev, S.I., 1988, p.30-37, rusj 44-1961
- Biological activity of frozen meadow-chemozem soils in the Amga River valley. Volotovskaia, T.N., et al, 1988, p.37-40, rusj 44-1962
- Moisture and temperature dynamics of frozen soils. Savvinov, G.N., 1988, p.49-59, rusj 44-1964
- Effect of fires on some hydrophysical properties of soils. Tarabukina, V.G., et al, 1988, p.86-91, rusj 44-1966
- Heating frozen soil. Filippov, P.I., 1988, p.121-126, rusj 44-1970
- Landscape-geochemical analysis of frozen-taiga geosystems. Shchetnikov, A.I., 1989, 127p., rusj 44-2068
- Cryogenic weathering of gold-quartz veins in the Baykal Mountains. Taisaev, T.T., 1990, p.297-302, engj 44-3362
- Classification and diagnostics of cryogenic soils in Yakutia. Elovskaia, L.G., 1987, 172p., rusj 44-3492
- Congress of soil scientists, 8th, Novosibirsk, 1989, 290p., rusj 44-3552
- Reclamation of cryogenic soils in the USSR. Uglanov, I.N., 1989, p.48-51, rusj 44-3553
- Cryosphere and biosphere in soil formation. Makeev, O.V., 1989, p.242-252, rusj 44-3554
- Cryogenesis and fertility of frozen soils in Yakutia. Elovskaia, L.G., 1989, p.253-257, rusj 44-3555
- Geography of soils in the permafrost region. Sokolov, I.A., et al, 1989, p.258-263, rusj 44-3556
- Physical chemical processes in soil cryogenesis. Voronin, A.D., et al, 1989, p.264-268, rusj 44-3557
- Permafrost, soils and microorganisms. Zviagintsev, D.G., et al, 1989, p.269-273, rusj 44-3558
- Paleocryogenesis, soil evolution, and structure of soil cover. Velichko, A.A., et al, 1989, p.274-280, rusj 44-3559
- Paleocryogenesis and soils of the Russian plain. Makeev, A.O., et al, 1989, p.281-287, rusj 44-3560
- Size distribution of gold grains in cryogenic zone. Taisaev, T.T., et al, 1990, p.699-703, rusj 44-3561
- Mapping of ice content and layers of permafrost. Vasil'chuk, I.U.K., et al, 1989, p.89-96, rusj 44-3708
- Soil electrical resistivity on King George I. Iribarren B., M., et al, 1990, p.95-100, spaj 44-3710
- Geology, soils and vegetation of gas condensate fields in Tyumen'. Masalkin, S.D., et al, 1989, 49p., rusj 44-3989
- Clay mineralogy of ungleyed cryohydromorphic soils. Gradusov, B.P., et al, 1990, p.80-87, engj 44-4056
- Saline soils in the Yukon Territory. Harris, S.A., 1990, p.159-175, engj 44-4285
- Agrophysical properties of cryogenic soils. Dugarov, V.I., et al, 1990, 255p., rusj 44-4288
- Soil series of the West Siberian platform. Trofimov, V.T., ed, 1988, 127p., rusj 44-4397
- Cryogenic structures**
- Tritium analysis of ground ice in permafrost. Wang, S.L., et al, 1989, p.53-59, chij 44-650
- Deposits on slopes of the Adycha valley. Liubomirov, A.S., 1989, p.13-20, rusj 44-3230
- Cryogenic textures of the periglacial zone of Zailiyskiy Alatau. Ukhnaev, V.A., 1989, p.49-62, rusj 44-3234
- Slope dynamics and cryogenic structure of active layer, Yakutia. Vasil'ev, I.S., 1989, p.143-152, rusj 44-3242
- Characteristic features of freezing of aqueous solutions. Lozinski, V.I., et al, 1990, p.592-596, engj 44-3596
- Strength of steel structures at low temperatures. Strizhalo, V.A., ed, 1990, 273p., rusj 44-4338
- Subzero treatment of construction alloys. Pisarenko, G.S., et al, 1990, p.3-9, rusj 44-4339
- Cryogenic engineering (problems of development). Filin, N.V., 1990, p.10-16, rusj 44-4340
- Fracturing in austenitic steel and nickel alloy at low temperatures. Aleksenko, E.N., et al, 1990, p.16-21, rusj 44-4341
- Effect of deformation on steel sensitivity to stresses. Antropov, N.P., et al, 1990, p.21-25, rusj 44-4342
- Temperature and stresses of a cryo-turbogenerator rotor. Gontarovich, P.P., et al, 1990, p.61-69, rusj 44-4351
- Engineering of thermoplastics at cryogenic temperatures. Drozdov, V.V., 1990, p.91-95, rusj 44-4357

- Calculation of temperature fields in low-temperature pipelines. Zvereva, T.V., et al, 1990, p.101-106, rusj 44-4359
- Effect of low-temperature strengthening on durability of structures. Kuranov, B.A., et al, 1990, p.120-125, rusj 44-4363
- Evaluation of low-cyclic strength of cryogenic equipment. Muratov, V.M., et al, 1990, p.161-167, rusj 44-4373
- Cryogenic textures**
- Environmental change of planet Mars demonstrated by landforms. Tricart, J.L.F., 1988, p.885-407, engj 44-695
- Acoustic properties of icy soils and ice. Zykov, I.U.D., et al, 1989, 133p., rusj 44-3550
- Cryogenics**
- Cryogenic scanning electron microscopy in the Arctic and Antarctic. Lilly, M.R., et al, 1990, p.51-60, engj 44-2206
- High-pressure freezing for the preservation of biological structure: theory and practice. Dahl, R., et al, 1989, p.165-174, engj 44-2789
- Effects of cryogenic temperatures on materials properties. Bibliography, 1990, 94p., engj 44-2817
- Device for removal of solid impurities from liquid nitrogen. Brownridge, J.D., 1989, p.70-71, engj 44-3082
- Convective heat transfer research using a cryogenic environment. Clausen, A.M., 1990, p.335-340, engj 44-3575
- Safety of liquid carbon dioxide storage vessels. Coleman, T., 1989, p.29-30, engj 44-3696
- Thermal stresses in a glass plate due to freezing and heating. Leonets, V.A., et al, 1990, p.130-135, rusj 44-4366
- See *also*: Refrigeration
- Cryopedology**
- See *also*: Geocryology
- Cryoplanation**
- See *also*: Altiplanation
- Cryostats**
- See *also*: Thermostats
- Crystal defects**
- Vibrational spectra and point defect activities of icy solids and gas phase clusters. Devlin, J.P., 1990, p.29-65, engj 44-3967
- Crystal growth**
- Cryogenic scanning electron microscopy in the Arctic and Antarctic. Lilly, M.R., et al, 1990, p.51-60, engj 44-2206
- Simulation of planar instabilities during solidification. Sullivan, J.M., Jr., et al, 1987, p.81-111, engj 44-2280
- Differential equation connected with the dendritic growth of crystals. Hammersley, J.M., et al, 1989, p.43-75, engj 44-3395
- Crystallization of water in cooled solutions. Kazarova, E.B., et al, 1987, p.1656-1658, rusj 44-2425
- Crystallization of methane hydrates from melting ice. Hwang, M.J., et al, 1990, p.103-116, engj 44-2776
- Monte Carlo simulation of a kinetic Ising model for dendritic growth. Harris, R., et al, 1990, p.1567-1571, engj 44-3955
- Enhanced diesel fuel low temperature operability—additive developments. Brown, G.I., et al, 1990, p.196-204, engj 44-3986
- See *also*: Ice crystal growth; Snow crystal growth
- Crystal optics**
- See *also*: Ice crystal optics
- Crystallization**
- See *also*: Ice crystal growth; Recrystallization; Snow crystal growth
- Crystallization nuclei**
- See *also*: Ice crystal nuclei
- Crystals**
- Melting behavior of fluid inclusions in halite crystals. Davis, D.W., et al, 1990, p.591-601, engj 44-3364
- See *also*: Ice crystals; Snow crystals
- Cubic ice**
- Amorphization of cubic ice by ultraviolet radiation. Kouchi, A., et al, 1990, p.134-135, engj 44-3115
- Culverts**
- New Alaskan road beats drainage problems. Groves, J., 1989, p.88-89, engj 44-1513
- Computer simulation of two-dimensional frost heaving in soils. Hovan, J.M., 1989, 79p., engj 44-2806
- Study on the stability of culverts on the Baykal-Amur railroad. Volkov, V.N., 1990, p.129-137, rusj 44-4311
- Currents**
- See *also*: Ocean currents; Tidal currents
- Cutting**
- See *also*: Ice cutting
- Cyclic variations**
- See *also*: Periodic variations
- Cyclones**
- See *also*: Atmospheric disturbances
- Czechoslovakia**
- Elbe River**
- Floods and droughts in Labe River basin—the hydrograph shape. Buchtele, J., 1989, p.133-142, engj 44-2191

Damage

- Subalpine snow avalanche slopes. Butler, D.R., 1989, p.269-273, engj 44-495
- Avalanche-hazard index. Schaerer, P., 1989, p.241-247, engj 44-582
- Mechanics of damage in rate-sensitive construction materials. Sunder, W.S., et al, 1987, 120p., engj 44-719
- Physical characteristics of hail and damage to agricultural crops. Tisov, M.I., et al, 1989, p.137-145, rusj 44-821
- How to reduce winter ice damage to marinas. Wortley, C.A., 1985, 2p., engj 44-1064
- Condition survey of lock number 7, Monongahela River. Final report. Stowe, R.L., 1987, 154p., engj 44-1235
- Response of semi-submersibles in ice environment. Arockiasamy, M., et al, 1985, p.33-46, engj 44-1300
- Effects of ice jam on submersed macrophyte communities. Nichols, S.J., et al, 1989, p.2364-2370, engj 44-1527
- Freeze-thaw repairs to Haweswater Dam. Barfoot, J., 1989, p.44-45, engj 44-1885
- Airphoto analysis of winter seismic disturbance in northeastern Alaska. Reynolds, M.K., et al, 1989, p.362-367, engj 44-1935
- Tree damage from river ice along the Grande Ronde River in Oregon. Filip, G.M., et al, 1989, p.211-213, engj 44-2278
- Roof collapse under snowdrift loading and snowdrift design criteria. Zallen, R.M., 1988, p.80-98, engj 44-2512
- Roof collapse under snowdrift loading and snowdrift design criteria—discussion. O'Rourke, M.J., 1989, p.266-268, engj 44-2513
- Inventory of river training structures in shallow-draft waterways. Final report. Derrick, D.L., et al, 1989, 36p., engj 44-2652
- Sticky snow: stopping the damage. Admirat, P., et al, 1990, p.96-99, frej 44-3412
- Tree morphology as an estimator of average snow depth. Wooldridge, G.L., et al, 1989, p.232-236, engj 44-4019
- Effect of low temperature and hydrogen on destruction of steel joints. Mikhailov, V.E., et al, 1990, p.153-157, rusj 44-4371
- Dams**
- Ice formation in rockfill and rockfill-earth dams in permafrost regions. Mukhetdinov, N.A., 1989, p.30-32, rusj 44-96
- Snow avalanche dams in Glacier National Park. Butler, D.R., 1989, p.109-115, engj 44-113
- Ice formation downstream of Oahe Dam—1987-1988 winter. Ashton, G.D., 1988, 37p., engj 44-226
- Recent applications of soil freezing techniques in Spanish construction works. Rojo, J.L., et al, 1989, p.525-532, engj 44-929
- Condition survey of lock number 7, Monongahela River. Final report. Stowe, R.L., 1987, 154p., engj 44-1235
- Unconventional power sources for ice control at locks and dams. Nakato, T., et al, 1989, p.107-126, engj 44-1771
- Freeze-thaw repairs to Haweswater Dam. Barfoot, J., 1989, p.44-45, engj 44-1885
- Some problems of the ice cover formation in the Wloclawek reservoir. Grzes, M., 1989, p.76-92, engj 44-2025
- Effect of Danube dams on ice regime. Starosolszky, O., 1989, p.222-232, engj 44-2038
- See *also*: Earth dams; Ice dams
- Data processing**
- Arctic data and information: issues and goals. 1989, 33p., engj 44-268
- Estimating ocean wave spectra by SAR. Tilley, D.G., 1989, p.483-491, engj 44-402
- Airborne SAR observations of ocean surface waves penetrating floating ice. Raney, R.K., et al, 1989, p.492-500, engj 44-403
- Use of a new high-speed digital data acquisition system in airborne ice-sounding. Wright, D.L., et al, 1989, p.561-567, engj 44-410
- Interfacing geographic data with real-time hydrologic forecasting models. Eagle, T.C., et al, 1989, p.857-861, engj 44-425
- Mapping snow cover with satellite imagery. Holroyd, E.W., III, et al, 1989, p.59-68, engj 44-505
- Automated collection of water-quality and discharge data on streams. Sturges, D.L., et al, 1989, p.122-125, engj 44-512
- Weather observations at GvN Station, 1985-1987. Helmes, L., 1989, 90p., engj 44-1070
- Data reduction of GOES information from DCP networks. DeCoff, G.W., et al, 1989, 15p., engj 44-1480
- Beaufort Sea ice scour data base (SCOURBASE) update to 1986. Gilbert, G.R., et al, 1989, 99p., engj 44-1487
- Data processing of avalanche information for avalanche forecasting. Kansev, L.A., et al, 1989, p.179-185, rusj 44-337
- Radio scattering of Antarctic ice sheet by airborne radar—echo soundings. Uratsuka, S., et al, 1989, p.142-151, engj 44-1812
- WDC-A for Glaciology antarctic-related activities, 1987. Hanson, C.S., et al, 1988, p.218-219, engj 44-2141

- Satellite monitoring of sea ice along the coast of China. Gong, J., [1989, p.379-390, eng] 44-2594
- Collection of non-conus aircraft icing data. Engler, N.A., et al, [1988, 120p., eng] 44-2741
- Automatic information system in support of operations at antarctic stations. Iulin, A.V., et al, [1989, p.108-115, rus] 44-2830
- MTCLIM: a mountain microclimate simulation model. Hungerford, R.D., et al, [1989, 52p., eng] 44-2834
- Radar data gathering on M.V. Arctic—Final report. Gautier, C., [1990, 23p., eng] 44-3008
- Management of satellite data reception at Molodezhnaya Station. Evseev, V.V., [1989, p.84-89, rus] 44-3071
- 150 MHz coherent radar system. Moore, R.K., et al, [1989, p.42-47, eng] 44-3358
- Multisensor validation of satellite derived sea ice microwave images. Steffen, K., et al, [1990, p.75-82, eng] 44-3398
- NOAA AVHRR imagery of sea ice near Casey. Allison, I., et al, [1989, p.62-79, eng] 44-3447
- Ice-motion tracking system at the Alaska SAR facility. Kwok, R., et al, [1990, p.44-54, eng] 44-3621
- Satellite and geographic information system estimates of Colorado River Basin snowpack. Ferris, J.S., et al, [1989, p.1629-1635, eng] 44-3776
- Classification of merged AVHRR and SMMR arctic data with neural networks. Key, J.R., et al, [1989, p.1331-1338, eng] 44-3777
- NASA SSM/I data processing and archiving of sea ice products. Morris, C.S., [1990, p.203-205, eng] 44-3850
- Cloud cover analysis with radiometer data. Key, J.R., [1990, p.7661-7675, eng] 44-3873
- Star Vue interactive assistance. McAvoy, J.G., [1990, 26p. + appns., eng] 44-3947
- TAIS system and scientific and operational support of navigation. Kapustin, A.N., et al, [1990, p.110-113, eng] 44-4076
- TROS operational vertical sounder temperature retrievals. Lutz, H.J., et al, [1990, p.11747-11754, eng] 44-4258
- Classification of sea-ice images using a dual-polarized radar. Orlando, J.R., et al, [1990, p.228-237, eng] 44-4269
- Shipborne AVHRR-HRPT receiving and image processing system for polar research. Viehoff, T., [1990, p.877-886, eng] 44-4282
- Data transmission**
- CRREL's experiences of remote sensing technology transfer to the Corps user. Merry, C.J., [1987, p.271-273, eng] 44-948
- Other cold war. McDowell, J.S., [1990, p.2-7, eng] 44-2436
- International Ice Patrol: the battle continues. Christian, M.B., [1990, p.8-10, eng] 44-2437
- Satellite data collection platforms for temperature measurements. Daly, S.F., et al, [1989, 14p., eng] 44-2846
- Dating**
- See *also*: Age determination
- Decomposition**
- Drama under the snow. Burdasov, V., [1988, p.42-45, eng] 44-1463
- Deterioration of concrete in cold sea waters. Moukwa, M., [1990, p.439-446, eng] 44-3898
- Low temperature effect on the damping properties of polymer glue. Yakovlev, A.P., et al, [1990, p.681-684, eng] 44-3900
- Litter decomposition beneath deep snow in temperate climates. Taylor, B.R., [1989, p.223-227, eng] 44-4017
- Defects**
- Fundamental characteristics of AC flashover on contaminated insulators covered with ice. Sato, M., et al, [1989, p.889-896, eng] 44-3434
- See *also*: Crystal defects
- Deflation**
- See *also*: Wind erosion
- Deformation**
- Reinforcing and stabilizing buildings on sagging loess soils. Gilman, I.A.D., [1989, 159p., rus] 44-9
- Moisture content distribution and frost heave deformation in clay soils. Andreeva, N.G., et al, [1985, p.120-125, rus] 44-209
- State of the art: mechanical properties of frozen soil. Sadovskii, A.V., et al, [1989, p.443-463, eng] 44-920
- Deformation characteristics of thawing permafrost soils. Ponomarev, V.D., et al, [1989, p.10-13, eng] 44-1258
- Chemogenic heaving of frozen rocks. Lebedenko, I.U.P., [1989, p.60-70, rus] 44-1341
- State-of-the-art stress, strain and deflection measurements. Ullidtz, P., et al, [1989, p.148-161, eng] 44-1653
- Use of the multidepth deflectometer for deflection measurements. Scullion, T., et al, [1989, p.186-196, eng] 44-1657
- NDT in cold regions: a review of the state-of-the-art of deflection testing. Coetzee, N.F., et al, [1989, p.198-209, eng] 44-1658
- SASW method in determining moduli of pavements. Nazarian, S., [1989, p.210-225, eng] 44-1659
- Alaska's experiences with non-destructive testing. Connor, B., [1989, p.226-233, eng] 44-1660
- Testing of instrumented airfield pavements, Manitoba, Canada. Ganapathy, G.V., [1989, p.234-265, eng] 44-1661
- SHRP prototype procedures for calibrating falling weight deflectometers. Richter, C.A., et al, [1989, p.296-303, eng] 44-1665
- Direct comparison of nondestructive, laboratory, and *in situ* testing. Anderson, M., et al, [1989, p.310-319, eng] 44-1667
- Resilient modulus determination for frost conditions. Chamberlain, E.J., et al, [1989, p.320-333, eng] 44-1668
- Layer moduli and runway overlay design, Kodiak Airport, Alaska. Vinson, T.S., et al, [1989, p.334-345, eng] 44-1669
- Variability of pavement layer moduli from NDT measurements. Rada, G.R., et al, [1989, p.346-357, eng] 44-1670
- Full scale pavement test international joint research. Dumont, A.G., et al, [1989, p.370-375, eng] 44-1672
- Case studies in application of pavement instrumentation. Bentsen, R.A., et al, [1989, p.376-384, eng] 44-1673
- Experience of pavement instrumentation at TRRL. Addis, R.R., [1989, p.385-393, eng] 44-1674
- Strength of ice adhesion to solid bodies. Golubev, V.N., [1989, p.11-19, rus] 44-2146
- Building structures on swelling clayey soils. Sorochan, E.A., [1989, 309p., rus] 44-2404
- Effects of sub-freezing temperatures on graphite/epoxy composite materials. Tsotsis, T.K., [1989, p.438-439, eng] 44-2591
- Deformation of steel at low temperatures. Koval'chuk, B.I., [1989, p.56-59, eng] 44-3880
- Effect of deformation on steel sensitivity to stresses. Antropov, N.P., et al, [1990, p.21-25, rus] 44-4342
- Effect of ordered discreteness on the temperature dependence of strength characteristics of GTsK metals. Borisenko, V.A., et al, [1990, p.43-47, rus] 44-4347
- Temperature and stresses of a cryo-turbogenerator rotor. Gontarovskii, P.P., et al, [1990, p.61-69, rus] 44-4351
- Specific energy for the destruction of 10Kh2GM steels at low temperatures. Guliaev, V.P., et al, [1990, p.78-81, rus] 44-4354
- Evaluation of scaling effect in low-cycle fatigue. Dobrovolskii, V.I., [1990, p.86-91, rus] 44-4356
- Steel strengthening by electric current at cryogenic temperatures. Novogrudskii, L.S., [1990, p.167-172, rus] 44-4374
- Brittle-destruction criteria for alloy steel bending. Sarraf, V.I., et al, [1990, p.213-215, rus] 44-4384
- Effect of phase conversion on viscosity of steels. Shternin, S.L., et al, [1990, p.243-247, rus] 44-4391
- Stress-strain state in cylindrical pipes at low temperatures. IUzevich, V.N., [1990, p.253-257, rus] 44-4393
- Cyclic durability of Nb-Cu in the temperature range of 293-4.2 K. IAKovenko, L.F., [1990, p.261-264, rus] 44-4395
- Proglacial glaciotectionic deformation and push moraine origin. Hart, J.K., [1990, p.165-180, eng] 44-4476
- See *also*: Ice deformation; Plastic deformation; Rheology; Snow deformation
- Detrosting**
- Analysis of frost formation on vehicle windows. Sakamoto, H., et al, [1987, p.155-166, eng] 44-1191
- Frost formation and detrosting for heat pump systems. Aoki, K., [1986, p.61-69, jpn] 44-1330
- Frost formation of tube-array evaporators in a fluidized bed. Aihara, T., et al, [1988, p.973-980, eng] 44-1376
- Model to compare freezing control strategies for residential air-to-air heat recovery ventilators. Phillips, E.G., et al, [1989, p.475-483, eng] 44-3031
- Comparison of freezing control strategies for residential air-to-air heat recovery ventilators. Phillips, E.G., et al, [1989, p.484-490, eng] 44-3032
- Degradation**
- Determining moisture induced distress in asphalt concrete mixes. Heinicke, J.J., et al, [1987, 99p., eng] 44-784
- Factors affecting the low temperature pumpability of used engine oils. May, C.J., et al, [1987, p.7298-7306, eng] 44-1194
- Degree days**
- Thin ice growth. Ashton, G.D., [1989, p.564-566, eng] 44-7
- Spring melt simulation in the Eaux Volées watershed, Montmorency Forest, Quebec. Berraja, M., et al, [1988, p.197-203, fre] 44-750
- Temporal variation of freezing degree days in Danish domestic waters. Christensen, F.T., [1988, p.201-206, eng] 44-1139
- Deicing**
- See *also*: Ice removal
- Deltas**
- Periglacial sand wedges and wind-polished stone pavements in south Sweden. Johnson, G., [1988, p.99-110, eng] 44-91
- Hydrology of Mackenzie Delta lakes. Marsh, P., [1989, p.43-55, eng] 44-140
- Flooding hydrology of Mackenzie Delta lakes. Marsh, P., et al, [1989, p.41-49, eng] 44-490
- Hydrological regime of lakes in the Mackenzie Delta, Northwest Territories, Canada. Bigras, S.C., [1990, p.163-174, eng] 44-4049
- Dendritic ice**
- Thermal conductivity of a dendritic ice layer. Fukusako, S., et al, [1989, p.269-278, eng] 44-263
- Freezing characteristics of ethylene glycol solution. Fukusako, S., et al, [1989, p.303-309, eng] 44-1204
- Convective motion in dendrite growth. Hallett, J., et al, [1987, 126p., eng] 44-1293
- Dendritic growth of an elliptical paraboloid with forced convection in the melt. Ananth, R., et al, [1989, p.575-593, eng] 44-1872
- On the mechanisms of the ice accretion on h.v. conductors. Teisseyre, Y., et al, [1990, p.1-8, eng] 44-3536
- Dendrochronology**
- See *also*: Age determination
- Denmark**
- Danish arctic science and engineering. Taagholt, J., [1989, p.19-29, eng] 44-126
- Temporal variation of freezing degree days in Danish domestic waters. Christensen, F.T., [1988, p.201-206, eng] 44-1139
- Jutland**
- Periglacial form group of southwestern Denmark. Svensson, H., [1984, p.25-34, eng] 44-2640
- Zealand**
- Observations of sea ice influence on the littoral sediment exchange, North Zealand, Denmark. Nielsen, N., [1988, p.61-67, eng] 44-2577
- Density (mass/volume)**
- Thermal conductivity coefficient of frozen chernozem-meadow soils. Mandarov, A.A., et al, [1988, p.76-86, rus] 44-1965
- Estimates of precipitation embryo densities using measurements from an aircraft radar. Mather, G.K., [1989, p.1089-1097, eng] 44-2759
- Effect of freeze thaw activity on the soil physics. Benoit, G.R., et al, [1990, p.45-53, eng] 44-2965
- See *also*: Atmospheric density; Ice density; Snow density
- Density (number/volume)**
- See *also*: Ion density (concentration); Particle size distribution
- Deposits**
- See *also*: Glacial deposits; Lacustrine deposits; Marine deposits; Quaternary deposits; Sediments
- Depth**
- See *also*: Permafrost depth; Snow depth
- Depth hoar**
- Relationship between depth hoar and avalanche release. Ma, W.F., et al, [1990, p.37-40, eng] 44-3719
- Desalting**
- Using desalination technologies for water treatment. [1988, 74p., eng] 44-890
- Water desalination by freezing. Khodakov, V., et al, [1988, p.103-105, eng] 44-1467
- Ice crystallization developments for the butane direct-contact process. Wiegandt, H.F., et al, [1987, p.107-126, eng] 44-1787
- Vacuum freezing multiple phase transformation processes. Cheng, C.Y., et al, [1987, p.139-153, eng] 44-1788
- Fresh water from the sea, a new process. Maguire, J.B., [1987, p.155-162, eng] 44-1789
- Deserts**
- Physiology of plants in a cold arid climate. Efimov, M.V., [1988, 159p., rus] 44-90
- Vascular plant communities of a Canadian polar oasis. Muc, M., et al, [1989, p.1126-1136, eng] 44-1026
- Soil formation on the Peninsula Tugtulisuaq, Melville Bay, North West Greenland. Jakobsen, B.H., [1988, p.86-93, eng] 44-2581
- Design**
- Successful ice test-run for the new Swedish icebreaker Oden. [1989, p.705-706, eng] 44-135
- Design and construction of drill piles in thawing permafrost. Rastegaev, I.K., ed, [1988, 31p., rus] 44-192
- Drilling frozen ground with an instrument of extra-hard materials. Krasnik, V.G., et al, [1989, p.41-42, rus] 44-386
- Bibliography of patents for sleds and sledding (1970-1988). [1988, 41p., eng] 44-795
- Water and sewer service connections in permafrost areas of the Northwest Territories. Wilson, C.E., et al, [1989, p.188-196, eng] 44-1027
- Floating docks: today's choice for the Great Lakes. Wortley, C.A., [1987, 2p., eng] 44-1066
- Science support requirements in a modern icebreaker design. Hayes, R.M., [1988, p.507-518, eng] 44-1168
- Operation of diesel engines in cold climates. Bugelski, W.G., [1975, p.1273-1289, eng] 44-1187
- Designing E-plane funnels used in working frozen ground. Rikenglaiz, L.E., et al, [1989, p.1-4, rus] 44-1381
- Atomic icebreaker *Taimyr*. [1989, p.12-15, eng] 44-1715
- Development and design of sludge freezing beds. Martel, C.J., [1989, p.799-808, eng] 44-1799

Design (cont.)

- Electrical supply installations for the Baykal-Amur mainline. Darchiev, S.Kh., et al. [1989, 175p., rus] 44-1826
- Modeling the design of bases and foundations on permafrost. Agalakov, S.E., et al. [1989, p.132-135, rus] 44-2164
- Economical approach to receiving coal by rail in the sub-arctic environment. Swigart, B., et al. [1986, p.45-56, eng] 44-2188
- U.S. Coast Guard's new polar icebreaker design. Canavan, M.S., et al. [1988, p.1087-1097, eng] 44-2566
- Double pipe ensures reliable insulation of offshore pipelines. Bruschi, R., et al. [1988, p.59-67, eng] 44-2590
- Design of the crest of stone-earthen dams built in severe climates. Mukhetdinov, N.A., et al. [1989, p.67-72, rus] 44-2609
- Improvement in arctic submarine pipeline design. Blower, S., et al. [1989, p.433-440, eng] 44-2746
- Arctic marine radar development. Gautier, C., [1990, Var. p., eng] 44-2768
- Cold-climate nitrifying biofilters: design and operation considerations. Gullicks, H.A., et al. [1990, p.50-57, eng] 44-2833
- Parametric study of icebreaking bow forms. Carter, D., [1990, 87p., eng] 44-3198
- Jacket structures in the arctic and subarctic seas. Kimura, T., et al. [1988, p.1-6, eng] 44-3347
- Snow-winging tips. [1921, p.44, eng] 44-3369
- Summary of Beaufort Sea icebreaker performance. Keinonen, A.J., et al. [1990, p.1/1-1/10, eng] 44-3472
- Ice class upgrading of M.V. Arctic. Luce, M.P., [1990, p.K/1-K/9, eng] 44-3473
- Design and construction of the icebreaker Oden. Liljestrom, G.C., et al. [1990, p.L/1-L/10, eng] 44-3474
- Research vessel for the U.S. Antarctic Program. Kennedy, H., et al. [1990, p.M/1-M/8, eng] 44-3475
- Device for measuring low temperature properties of electrically conducting materials. Buravov, S.E., et al. [1988, p.100-104, eng] 44-3591
- New approach for sizing rapid infiltration systems (discussion and closure). Reed, S.C., et al. [1989, p.879-882, eng] 44-3746
- Technology transfer. [1989, p.42, eng] 44-3789
- Remote water-temperature measurement. Dai, S., [1989, 6p., eng] 44-3792
- Analysis of the composite ice wall. Corder, P.R., et al. [1990, p.21-39, eng] 44-3798
- Some exploratory tours on circular and sidewall ACIB concepts. Colbourne, B., et al. [1989, p.39-55, eng] 44-4134
- Optimization of hull form for future arctic tankers—phase I. Summary report. Luce, M.P., et al. [1989, 12p., eng] 44-4266
- Piezoecone calibration and accuracy for soft soil investigation. Mulabadi, M., et al. [1990, 62p., eng] 44-4461
- Kilpisjärvi project: case study of cold-regions research in Finland. McFadden, T., [1990, p.69-84, eng] 44-4488
- Design criteria**
- Icebreakers—their historical and technical development. Segercrantz, H., [1989, p.77-85, eng] 44-44
- Problems of ice mechanics in icebreaker's design. Dem'ianchenko, V.I.A., et al. [1983, 6p., eng] 44-191
- Design of arctic merchant ships. Bonmort, J., et al. [1987, p.307-311, fre] 44-601
- Selection of an optimum propeller for commercial ships. Final report. Hadler, J.B., [1988, 77p., eng] 44-1056
- CCGS Louis S. St. Laurent mid-life modernization design studies. Kendrick, A., et al. [1988, p.129-135, eng] 44-1203
- Snow cover and avalanche parameters for designing anti-avalanche structures. Volkovskii, K.F., et al. [1989, p.40-45, rus] 44-1569
- Designing buildings to withstand winds at Showa Station. Mitsuhashi, H., [1984, p.39-40, eng] 44-1676
- New standards for pavement design in Finland. Lehtonen, K., [1986, p.39-48, eng] 44-1792
- Guide for building and classing steel vessels intended to navigate in ice. [1986, 50p., eng] 44-2064
- Development of tugs for operation in the Canadian western Arctic. Mattson, J., [1989, p.52-53, eng] 44-2120
- Roof collapse under snowdrift loading and snowdrift design criteria. Zallen, R.M., [1988, p.80-98, eng] 44-2512
- Design requirement for ice forces. Wong, T.T., et al. [1989, p.524-535, eng] 44-2642
- Beaufort Sea causeways and coastal ocean dynamics. Niedoroda, A.W., et al. [1990, p.509-516, eng] 44-2764
- Electric vehicle design considerations for cold weather operations. Adams, W.A., et al. [1989, 4p., eng] 44-2852
- Simulation of district heating systems for piping design. Phetteplace, G., [1989, 27p., eng] 44-3925
- Optimal sizing of district heating pipes. Phetteplace, G., [1989, 25p., eng] 44-3926
- Determination of design permafrost temperatures for pipeline anchors. Gokhman, M.R., et al. [1990, p.252-257, eng] 44-4420
- See *also*: Building codes
- Detection**
- Test of vehicle magnetic signature duplicator mine detector. Rhodes, D.A., [1989, 19p. + append., eng] 44-475
- Detection of avalanches using atmospheric infrasound. Bedard, A.J., Jr., [1989, p.52-58, eng] 44-504
- Signal detection in arctic under-ice noise. Nielsen, P.A., et al. [1987, 11p., eng] 44-1063
- Radar to find persons buried in snow. Sakamoto, Y., et al. [1987, p.168-172, jpn] 44-2535
- Investigation of thermal screening of individual soldiers in cold regions. Final report. Murrell, D.F., [1990, 12p. + append., eng] 44-3443
- Laser measurement of chlorophyll-in-water in a marginal ice zone. Hoge, F.E., et al. [1989, p.67-76, eng] 44-3904
- Detection of coarse sediment movement using radio transmitters. Chacho, E.F., Jr., et al. [1989, p.367-373(B), eng] 44-3985
- See *also*: Crevasse detection; Ice detection; Moisture detection
- Deterioration**
- See *also*: Ice deterioration
- Detonation waves**
- Explosive waves in snow. Liakhov, G.M., et al. [1990, p.493-499, eng] 44-4262
- Deuterium oxide**
- See *also*: Heavy water
- Development**
- See *also*: Economic development; Land development; Landscape development; Natural resources
- Diagenesis**
- Ice beds in ice-marine sediments as a product of cryogenic diagenesis. Danilov, I.D., [1989, p.1201-1203, rus] 44-163
- Dielectric properties**
- Correlation function study for sea ice. Lin, F.C., et al. [1988, p.14,055-14,063, eng] 44-261
- Scattering of a spheroidal ice/water particle. Hume, A.L., et al. [1989, p.351-357, eng] 44-367
- Wet-snow metamorphism in relation to liquid water content. Brun, E., [1989, p.22-26, eng] 44-542
- Attenuation and scattering of radar waves of nonhomogeneous hail. Injukhin, V.S., et al. [1989, p.53-59, rus] 44-812
- Function of dielectric constant of nonhomogeneous hail particles. Marchenko, P.E., et al. [1989, p.35-41, rus] 44-866
- Electrical conductivity of KOH-doped ice from 70 to 250 K. Howe, R., et al. [1989, p.963-965, eng] 44-1087
- Potential of SAR in a snow and glacier monitoring system. Rott, H., et al. [1986, p.25-35, eng] 44-1238
- Microwave measurements of ice and snow. Hallikainen, M.T., et al. [1988, p.69-83, eng] 44-1427
- Effect of hypomagnetic fields on the dielectric losses in water and ice. Semikhina, L.P., [1988, p.153-155, eng] 44-2427
- Dielectric study on pure and KOH-doped tetrahydrofuran clathrate hydrates. Yamamoto, O., et al. [1990, p.33-44, eng] 44-2773
- Dielectric and C-15 NMR studies of sulfur dioxide-hydroquinone clathrates. Davidson, D.W., et al. [1990, p.187-197, eng] 44-2779
- Dielectric and C-13 NMR studies of the carbon monoxide clathrate hydrate. Desando, M.A., et al. [1990, p.3-16, eng] 44-2793
- Estimating sea ice thickness using data from impulse radar soundings. Kovacs, A., et al. [1989, 10p., eng] 44-2848
- Measurements of dielectric properties of frozen soils. Araki, T., et al. [1989, p.27-40, jpn] 44-3124
- Complex permittivity of water as a function of frequency and temperature. Kaatze, U., [1989, p.371-374, eng] 44-3341
- Ice chemistry and dielectric profiling. Moore, J.C., et al. [1990, p.195-198, eng] 44-4192
- Diesel engines**
- Retrofitting of CCG icebreaker Louis S. St. Laurent. Nissen, F.C., [1989, p.666-671, ger] 44-134
- Switch to multi-vis. [1988, p.70-71, eng] 44-753
- Keep fuel flowing. [1988, p.74-75, eng] 44-755
- Operation of diesel engines in cold climates. Bugelski, W.G., [1975, p.1273-1289, eng] 44-1187
- Low temperature starting of diesel engines using timed spark discharge. Dale, J.D., et al. [1985, 10p., eng] 44-1794
- Low temperature starting of a diesel engine. Dale, J.D., et al. [1984, 80p., eng] 44-1795
- Cold weather operation of Detroit Diesel engines. [1989, 16p., eng] 44-2044
- Operating a power station in arctic conditions. Feit, E., [1989, p.38-41, eng] 44-2096
- Low temperature pumpability studies in a heavy duty diesel engine. Pt. 2. Machleder, W.H., et al. [1989, 16p., eng] 44-2851
- Requirements of diesel engine oil as it relates to low temperature operation. Roth, R.J.G., [1989, 12p., eng] 44-2854
- Cold starting capabilities of lubricants in diesel engines. Margeson, M.A., et al. [1989, 11p., eng] 44-2855
- Army arctic engine oil performance in high ambient temperatures. Lestz, S.J., et al. [1989, 14p., eng] 44-2856
- Low-temperature pumpability of U.S. Army diesel engine oils. Frame, E.A., et al. [1989, 18p., eng] 44-2857
- Diffraction**
- See *also*: X ray diffraction
- Diffusion**
- Diffusion on a fractal state space. Krebs, W.B., [1989, 39p., eng] 44-1225
- Diffusivity of a glacial-outwash aquifer by the floodwave-response technique. Reynolds, R.J., [1987, p.290-299, eng] 44-3879
- See *also*: Ion diffusion; Self diffusion; Thermal diffusion; Turbulent diffusion; Vapor diffusion
- Discontinuous permafrost**
- Evaporation from a discontinuous permafrost, Alaska. Ishikawa, N., et al. [1988, p.103-116, jpn] 44-735
- Geological aspects of episodic permafrost expansion. Kullman, L., [1989, p.255-262, eng] 44-2626
- Water and suspended solids discharge during snowmelt. Chacho, E.F., Jr., [1990, p.167-173, eng] 44-3659
- Stratigraphy, active layer, and discontinuous permafrost in northern Quebec. Ben-Miloud, K., et al. [1990, p.181-190, eng] 44-3661
- Discontinuous permafrost and climate changes in northern Quebec. Lagarec, D., et al. [1990, p.215-222, fre] 44-3665
- Permafrost and terrain research and monitoring: Norman Wells pipeline—volume II: research and monitoring results—1983-1988. MacInnes, K.L., et al. [1990, 204p., eng] 44-3807
- See *also*: Taliks
- Dispersions**
- Glacier drainage system detected by dye-tracing experiments. Willis, I.C., et al. [1990, p.89-101, eng] 44-3727
- NMR study of effects of ice-forming compounds on water-oil emulsions. Arkharov, A.V., et al. [1990, p.1016-1018, eng] 44-3972
- Disposal**
- See *also*: Snow disposal; Waste disposal
- Distilled water**
- Effect of hypomagnetic fields on the dielectric losses in water and ice. Semikhina, L.P., [1988, p.153-155, eng] 44-2427
- Distribution**
- Arctic ice-ocean dynamics. Hibler, W.D., III, [1989, p.47-91, eng] 44-983
- Distribution of air temperature in avalanche zones. Samukashvili, R.D., [1989, p.19-28, rus] 44-1779
- Space and time distribution of glacier mass-balance in the Northern Hemisphere. Letreguilly, A., et al. [1990, p.43-50, eng] 44-2662
- New method for defining biogeographical zones in the Arctic. Elvebak, A., [1990, p.175-186, eng] 44-4114
- See *also*: Permafrost distribution; Sea ice distribution; Snow cover distribution
- Disturbances**
- See *also*: Atmospheric disturbances
- Diurnal variations**
- Infrared snow cover detection by warming of sea ice/snow surface. Ikeda, M., [1989, p.552-560, eng] 44-409
- Surface layer temperature records above sea ice and open water. Hoerber, H., [1989, p.293-297, eng] 44-412
- Diurnal patterns of the bi-directional reflectance of fresh-water ice. Leshkevich, G.A., et al. [1990, p.153-157, eng] 44-4183
- Docks**
- How to reduce winter ice damage to marinas. Wortley, C.A., [1985, 2p., eng] 44-1064
- Understanding ice and its behavior in marinas. Wortley, C.A., [1985, 2p., eng] 44-1065
- Floating docks: today's choice for the Great Lakes. Wortley, C.A., [1987, 2p., eng] 44-1066
- Design and use of floating docks in lake ice conditions. Wortley, C.A., [1988, p.617-626, eng] 44-1178
- Docks and marinas bibliography. Wortley, C.A., [1988, 46p., eng] 44-1220
- See *also*: Piers; Wharves
- Domes**
- See *also*: Pingos
- Doped ice**
- Electrical conductivity of KOH-doped ice from 70 to 250 K. Howe, R., et al. [1989, p.963-965, eng] 44-1087
- KOH doping and phase transition in ice Ih. Kawada, S., [1989, p.1177-1184, eng] 44-1349
- Drainage**
- Stochastic processes of melt runoff from Heigou Glacier, China. Hu, X.G., [1989, p.61-67, eng] 44-173
- Hydrology of Bayvelva, northwest Spitsbergen. Repp, K., [1988, p.105-114, eng] 44-240
- Experimental project No. 12: concrete pavement drainage rehabilitation. Kelly, R.C., [1989, p.74-75, eng] 44-1644

- Iowa Department of Transportation pavement instrumentation. Dankbar, R., 1989, p.304-307, eng 44-1666
- Layer moduli and runway overlay design, Kodiak Airport, Alaska. Vinson, T.S., et al, 1989, p.334-345, eng 44-1669
- Variability of pavement layer moduli from NDT measurements. Rada, G.R., et al, 1989, p.346-357, eng 44-1670
- Protecting the environment near a railroad line construction site in a mountain pass. Rubtsov, E.A., et al, 1989, p.67-77, rus 44-1783
- Calculating river flow formation in a forest drainage area. Nazarov, N.A., et al, 1988, 107p., rus 44-1883
- Plans for snow drainage ditches. Sawada, K., 1985, p.264-269, jpn 44-2326
- Ice-snow meltwater debris flow in the Dongru Longba, China. Lu, R.R., et al, 1989, p.148-160, chi 44-2409
- Frozen peat soil drainage in the Baikal-Amur Main line zone. Alekseyko, I.S., 1987, p.8-13, rus 44-2614
- Land reclamation methods in Siberia. Maslov, B.S., 1989, p.40-44, rus 44-2926
- See *also*: Runoff; Subglacial drainage; Subsurface drainage; Surface drainage
- Drains**
- Study of flood control-type snow removal gutters. Takasaka, K., et al, 1987, p.242-247, jpn 44-2539
- Control system of snow removing gutters. Saito, M., et al, 1987, p.248-253, jpn 44-2540
- Snow removal gutters using sea water. Sawada, K., et al, 1987, p.393-398, jpn 44-2552
- Development of snow-circulating-conveyance-gutter systems. Tanaka, M., 1988, p.412-418, jpn 44-2712
- Snow gutter booster and heat circulation for snow melting cistern. Taniguchi, M., et al, 1988, p.419-424, jpn 44-2713
- Glass fiber reinforced plastic snow drain cover. Gocho, M., et al, 1988, p.425-430, jpn 44-2714
- Snow gutters for urban streets. Suzuki, H., et al, 1988, p.610-614, jpn 44-2734
- Outline of snow gutters in Takikawa City. Goto, N., 1988, p.615-620, jpn 44-2735
- Drake Passage**
- Simulations of the annual sea ice cover in the Weddell Sea. Demuth, C., et al, 1989, 47p., eng 44-1354
- Dredging**
- Use of SPOT HRV data in the Corps of Engineers dredging program. Merry, C.J., et al, 1988, p.1295-1299, eng 44-435
- Use of SPOT HRV data in a Corps dredging operation in Lake Erie. Merry, C.J., et al, 1987, p.49-58, eng 44-946
- Arctic industrial activities, Vol.1: dredging in Beaufort Sea. Taylor, D.A., et al, 1985, 192p., eng 44-1506
- Drift**
- Expedition to study transpolar drift. Williams, F.M., 1987, 12p. + append., eng 44-228
- Fram Strait ice flux calculations and associated arctic ice conditions. Englebreton, R.E., et al, 1989, p.61-67, eng 44-297
- East antarctic sea ice zone: ice characteristics and drift. Allison, I., 1989, p.103-115, eng 44-301
- Effect of ice pressure on marginal ice zone dynamics. Flato, G.M., et al, 1989, p.514-521, eng 44-405
- Sea ice conditions in the Arctic Ocean. Wadhams, P., 1987, p.83-94, eng 44-599
- Variation in ice concentration off Hokkaido Island. Aota, M., et al, 1988, p.161-175, jpn 44-737
- Measuring the length of an ice floe trajectory. Hoerber, H., 1989, p.347-349, eng 44-764
- Arctic ice-ocean dynamics. Hibler, W.D., III, 1989, p.47-91, eng 44-983
- Mesoscale meteorology of the Norton Sound region. Kozo, T.L., 1988, p.163-181, eng 44-1137
- Wind speed, ocean current, and sea ice drift, Beaufort Sea. Kozo, T.L., 1988, p.183-200, eng 44-1138
- Operation testing and evaluation of the regional ice model. Krakowski, E., 1988, p.221-227, eng 44-1142
- Chukchi Sea ice motion 1981-82. Pritchard, R.S., et al, 1988, p.255-270, eng 44-1144
- Offshore winds and pack ice movement episodes north of Ellesmere Island. Ahlén, K., et al, 1988, p.271-286, eng 44-1145
- Uncertainty of summer ice drift forecasts. McKenna, R.F., et al, 1988, p.287-295, eng 44-1146
- Movement of the drifting ice in Bohai Bay. Deng, S.Q., 1988, p.297-300, eng 44-1147
- Weather station drift in the Beaufort Sea coastal ice zone. Lipoma, P., 1988, p.301-310, eng 44-1148
- Probabilistic ice formation encounter and load analysis. Brown, T.G., et al, 1988, p.397-408, eng 44-1157
- Arctic drifting buoy data 1979-1985. St. Martin, J.W., 1987, 126p., eng 44-1232
- Ice and snow surveys from an ice station. Håkansson, B., et al, 1988, p.85-101, eng 44-1428
- Helicopter impulse radar measurement. Ulriksen, P., 1988, p.149-151, eng 44-1432
- Beaufort Sea mesoscale circulation study - final report. Aagaard, K., et al, 1989, 114p., eng 44-1834
- Ice release from a reservoir. Bakonyi, P., 1989, p.15-25, eng 44-2019
- New techniques for slush ice run measurement in Poland. Dobrowolski, A., et al, 1989, p.46-54, eng 44-2022
- Analysis of stress distributions in an ice floe. Frederking, R.M.W., et al, 1990, p.83-87, eng 44-2210
- Field measurements of ice drag coefficients. Bruno, M.S., 1990, p.155-159, eng 44-2219
- Sensitivity and uncertainty analysis of a short-term sea ice motion model. Thomson, N.R., et al, 1990, p.1713-1739, eng 44-2359
- Ice drift and momentum exchange in winter antarctic pack ice. Martinson, D.G., et al, 1990, p.1741-1755, eng 44-2360
- Forecasting ice cover load capacity, ice drift, and ice clearing in reservoirs. Lobovikova, Z.P., 1989, p.48-51, rus 44-2929
- Effect of the equatorial Pacific Ocean on interannual variability in the Okhotsk Sea ice. Tachibana, Y., et al, 1989, p.71-77, jpn 44-3126
- Atmospheric boundary layer around an observation tower. Aota, M., et al, 1989, p.79-89, jpn 44-3127
- Models of the mechanical properties of ice. Richter-Menge, J.A., et al, 1989, p.87-99, eng 44-3139
- Recent progress in Navy sea ice forecast modeling. Preller, R.H., 1989, p.125-139, eng 44-3144
- Comment on "Seasonal variations in sea ice motion and effects on sea ice concentration in the Canada Basin" by M.C. Serreze et al. Lewis, J.K., 1990, p.5405-5408, eng 44-1281
- Ice drift modelling for the Barents Sea. Carstens, T., et al, 1988, p.171-179, eng 44-3321
- Impact of ice on petroleum exploration in the Barents Sea. Løset, S., et al, 1988, p.195-206, eng 44-3323
- Ice-motion tracking system at the Alaska SAR facility. Kwok, R., et al, 1990, p.44-54, eng 44-3621
- Sediment transport by ice scouring. Barnes, P.W., et al, 1990, p.109-111, eng 44-3830
- Mountain barrier effects on ice island drift in a coastal ice zone. Lu, M., et al, 1990, p.163-168, eng 44-3842
- Analysis of sea ice drift in a coastal zone. Smith, P.A., 1990, p.168-172, eng 44-3843
- Sea ice circulation and ice concentration, Beaufort Sea. Serreze, M.C., et al, 1990, p.185-188, eng 44-3848
- On modeling the baroclinic adjustment of the Arctic Ocean. Hibler, W.D., III, 1990, p.247-250, eng 44-3860
- Sea ice model forced with GCM atmosphere. Loewe, P., 1990, p.251-255, eng 44-3861
- Preliminary testing of a sea ice model for the Greenland Sea. Preller, R.H., et al, 1990, p.259-277, eng 44-3863
- Estimation of drag coefficient and ice thickness. McPhee, M.G., 1990, p.281-284, eng 44-3865
- Simulation of ice movement in the Arctic Basin over long-term periods. Appel, I.L., et al, 1990, p.149-150, eng 44-4082
- Dynamic evaluation of the surface circulation using remote sensing of drifting ice floes. Larouche, P., et al, 1990, p.9755-9764, eng 44-4335
- See *also*: Continental drift; Snowdrifts
- Drift stations**
- Arctic sea ice characteristics inferred from satellite and buoy data. Barry, R.G., et al, 1989, p.35-44, eng 44-295
- Seasonal variations of sea ice motion in the Transpolar Drift Stream. Serreze, M.C., et al, 1989, p.811-814, eng 44-363
- Surface layer temperature records above sea ice and open water. Hoerber, H., 1989, p.293-297, eng 44-412
- Support for an arctic camp for 10 persons for 30 days. Final report. Welsh, J.P., et al, 1988, 22p., eng 44-675
- Navarin Basin ice drift program. Final report Mar. 1986-Jan. 1987. 1987, 39p., eng 44-1216
- Eastern Weddell Sea ocean/meteorological drifters. Martinson, D.G., 1988, p.73-74, eng 44-1702
- Ross Sea data buoy project, 1986-1988. Moritz, R.E., 1988, p.78-80, eng 44-1703
- Oceanic heat flux in the Fram Strait measured by a drifting buoy. Perovich, D.K., et al, 1990, p.291-296, eng 44-3867
- Drill core analysis**
- Sediments of glacial-interglacial cycles in the Norwegian Sea. Heinrich, R., et al, 1989, p.283-319, eng 44-219
- Pre-Incan agricultural activity recorded in dust layers in two tropical ice caps. Thompson, L.G., et al, 1988, p.763-765, eng 44-287
- Ocean drilling in the Weddell Sea. Nagao, T., 1987, p.45-51, jpn 44-380
- Ocean drilling in Prydz Bay and Kerguelen Plateau. Sakai, H., 1988, p.21-26, jpn 44-382
- Sediment flux in fiords. Andrews, J.T., 1987, 8p., eng 44-1611
- Pleistocene evolution: Northern Hemisphere ice sheets and North Atlantic Ocean. Ruddiman, W.F., et al, 1989, p.353-412, eng 44-1733
- Late Pliocene northern ice sheets and deep water circulation. Raymo, M.E., et al, 1989, p.413-446, eng 44-1734
- Volcanic ash layers in blue ice fields. Koeberl, C., 1988, p.93-94, eng 44-1746
- Search for the Tunguska event in the antarctic snow. Rocchia, R., et al, 1988, p.156-157, eng 44-1747
- Physical properties of carbonate rocks. Bondarenko, A.T., et al, 1989, p.121-128, rus 44-2053
- Dominion Range ice core characteristics, Antarctica. Mayewski, P.A., et al, 1990, p.11-16, eng 44-3716
- US global ice core research program West Antarctica and beyond. Groote, P.M., et al, 1989, 32p., eng 44-3738
- Analyses of permafrost cores from an alpine rock glacier. Haeblerli, W., ed, 1990, 38p., eng 44-4131
- See *also*: Coring; Ice cores
- Drilling**
- Drilling frozen ground with an instrument of extra-hard materials. Krasnik, V.G., et al, 1989, p.41-42, rus 44-386
- Engineering geology studies on the National Petroleum Reserve in Alaska. Kachadoorian, R., et al, 1988, p.899-922, eng 44-393
- Resurvey of Byrd Station drill hole. Hansen, B.L., et al, 1989, p.1-6, eng 44-825
- General report on case histories. Gallavresi, F., 1989, p.509-511, eng 44-927
- Hot-water drilling on the Siple Coast. Boller, W.L., et al, 1988, p.62-63, eng 44-1696
- Undersaturation in thawed permafrost at the beginning of freezeback. Ayorinde, O.A., 1990, p.317-321, eng 44-2241
- Introduction to drilling technology. Mellor, M., 1989, p.95-114, eng 44-2800
- Eleven months in the installation of an arctic mobile drilling structure. Johansson, B.M., et al, 1984, p.A/1-A/19, eng 44-3450
- Borehole shaft stability during deep drilling of ice cover. Pashkevich, V.M., et al, 1989, p.39-50, rus 44-3493
- Core drilling with semi-automatic borehole tools on hoist cable. Vasil'ev, N.I., 1989, p.51-58, rus 44-3494
- See *also*: Offshore drilling; Percussion drilling; Rock drilling; Rotary drilling
- Drilling fluids**
- Effects of pit fluids on water quality of tundra ponds in Alaska. West, R.L., et al, 1987, 49p., eng 44-2943
- Developing of low-waste technology for well drilling in the Far North. Rubanova, N.A., et al, 1989, p.114-118, rus 44-4521
- Drills**
- Drilling frozen ground with an instrument of extra-hard materials. Krasnik, V.G., et al, 1989, p.41-42, rus 44-386
- See *also*: Ice coring drills; Ice drills; Thermal drills
- Drops (liquids)**
- Ice accretion on a spherical halstone model. Okudzhava, A.M., et al, 1988, p.136-139, rus 44-69
- Ice crystallization in water drops and on surfaces. Zhao, W.H., 1989, 104p., eng 44-1021
- Operating envelopes of particle sizing instrumentation used for icing research. Final report. Hovenac, E.A., 1987, 16p., eng 44-1099
- Supercooling solidification of liquid droplets; aqueous solution of NaCl. Ichimiya, K., et al, 1984, p.37-42, jpn 44-1326
- Droplet sizing instrumentation used for icing research. Hovenac, E.A., 1989, 53p., eng 44-2808
- Liquid water content and droplet size calibration of the NASA Lewis Icing Research Tunnel. Ide, R.F., 1989, 28p., eng 44-2812
- On the mechanisms of the ice accretion on h.v. conductors. Teisseyre, Y., et al, 1990, p.1-8, eng 44-3536
- See *also*: Cloud droplets; Raindrops
- Drying**
- Application of ground freezing at Rogers Pass, Canada. Macfarlane, I.M., et al, 1989, p.563-564, eng 44-936
- Drying cut peat in a frozen deposit. Gamaiunov, N.I., et al, 1989, p.19-24, rus 44-1401
- Advisability of using drying drums for reclamation of frozen soils. D'iakonov, P.I.U., et al, 1989, p.53-55, rus 44-2647
- See *also*: Freeze drying
- Durability**
- Evaluation of low-cyclic strength of cryogenic equipment. Muratov, V.M., et al, 1990, p.161-167, rus 44-4373
- Steel strengthening by electric current at cryogenic temperatures. Novogrudskii, L.S., 1990, p.167-172, rus 44-4374
- Mechanical properties of carbonic nickel steels at low temperatures. Perkas, M.D., et al, 1990, p.181-186, rus 44-4377
- Cyclic durability of Nb-Cu in the temperature range of 293-4.2 K. Iakovenko, L.F., 1990, p.261-264, rus 44-4395
- Dust**
- Fracturing mechanism and dust yield dynamics in impact breakage of permafrost. Larionov, V.R., et al, 1988, p.438-441, eng 44-223
- Vibrating wire technology for settled dust monitoring. Dutta, P.K., et al, 1988, p.71-82, eng 44-282
- Heating of dust particles enclosed in icy material. Kömle, N.I., et al, 1989, p.193-195, eng 44-525

Dust (cont.)

- Implications of the Vostok core dust record. Petit, J.R., et al. (1990, p.56-58, eng) **44-1537**
- Martian polar cap: radiative effects of ozone, clouds, and airborne dust. Lindner, B.E., (1990, p.1367-1379, eng) **44-2288**
- Transport of dust to high northern latitudes in a Martian polar warming. Barnes, J.R., (1990, p.1381-1400, eng) **44-2289**
- H₂O grain size and the amount of dust in Mars' residual north polar cap. Kieffer, H.H., (1990, p.1481-1493, eng) **44-2294**
- Martian dust particles as condensation nuclei: mineralogical factors. Gooding, J.L., (1986, p.56-74, eng) **44-2396**
- Spring melting at an Alpine site: the influence of mineral dust. Delmas, V., (1989, p.36-44, fre) **44-3997**
- See *also*: Cosmic dust

Dust control

- Fracturing mechanism and dust yield dynamics in impact breakage of permafrost. Laronov, V.R., et al. (1988, p.438-441, eng) **44-223**

Dynamic loads

- Compaction characteristics in thawing sandy soil under dynamic loads. Inozemtsev, V.K., (1985, p.114-119, rus) **44-208**
- Thermal and dynamic response of concrete at low temperature. Marshall, A.L., et al. (1988, p.519-526, eng) **44-1169**
- Response of semi-submersibles in ice environment. Arockiasamy, M., et al. (1985, p.33-46, eng) **44-1300**
- Iowa Department of Transportation weigh-in-motion. McCall, B., (1989, p.286-295, eng) **44-1664**
- Variability of pavement layer moduli from NDT measurements. Rada, G.R., et al. (1989, p.346-357, eng) **44-1670**
- Case studies in application of pavement instrumentation. Bentsen, R.A., et al. (1989, p.376-384, eng) **44-1673**
- Failure modes observed during river ice breakup. Prowse, T.D., et al. (1989, p.237-241, eng) **44-4020**
- Test methods for crack-resistance of structural steels under dynamic load. Basko, E.M., et al. (1990, p.28-32, rus) **44-4344**

Dynamic properties

- Model for the turning snow ski. Renshaw, A.A., et al. (1989, p.721-736, eng) **44-1843**
- Ship icebreaking resistance with flooding water effect. Wang, S.L., et al. (1990, p.127-134, eng) **44-2215**
- Dynamic analysis of a floating ice sheet undergoing vertical indentation. McGilvary, W.R., et al. (1990, p.195-203, eng) **44-2224**
- Beaufort Sea causeways and coastal ocean dynamics. Niedoroda, A.W., et al. (1990, p.509-516, eng) **44-2764**
- Redistribution function applicable to a dynamic model of sea ice. Shinohara, Y., (1990, p.13,423-13,431, eng) **44-4546**

Earth dams

- Ice formation in rockfill and rockfill-earth dams in permafrost regions. Mukhetdinov, N.A., (1989, p.30-32, rus) **44-96**
- Design of the crest of stone-earth dams built in severe climates. Mukhetdinov, N.A., et al. (1989, p.67-72, rus) **44-2609**
- Earth embankment with thermal insulation and nonfreezing drainage. Kuznetsov, G.I., et al. (1990, p.64-73, rus) **44-3944**

Earth fills

- See *also*: Hydraulic fill; Rock fills

Earthquakes

- Hydrodynamic forces in ice covered sea during earthquake. Kiyokawa, T., et al. (1989, p.153-160, eng) **44-1114**
- Seismic telemetry network at Showa Station. Akamatsu, J., et al. (1989, p.1-12, eng) **44-2388**

See *also*: Seismology**Earthwork**

- Hydroelectric power from glacier runoff at Bradley Lake, Alaska. Lawson, M., (1989, p.28-30, eng) **44-310**
- Pangnirtung water reservoir: geotechnical aspects. Smith, L.B., et al. (1989, p.335-347, eng) **44-311**
- Designing E-plane funnels used in working frozen ground. Rikengla, L.E., et al. (1989, p.1-4, rus) **44-1381**
- Evaluating p.e.-winter soil preparation for reclamation construction. Kaluzhnyi, I.I., et al. (1987, p.24-27, rus) **44-2615**
- Earthwork construction. Waidelich, W.C., (1990, p.25-48, eng) **44-4267**
- Environmental considerations. McGuffey, V.C., et al. (1990, p.83-91, eng) **44-4268**

- See *also*: Excavation; Trenching; Tunneling (excavation)

Echo sounding

- High frequency acoustical properties of saline ice. Jezek, K.C., et al. (1989, p.9-23, eng) **44-3135**

Ecology

- AMERIEZ 1986: responses of under-ice fauna to low temperature and stress. Aarset, A.V., (1989, p.170-171, eng) **44-21**
- AMERIEZ 1986: oceanic factors affecting seabird occurrence. Ainley, D.G., et al. (1989, p.172-173, eng) **44-22**

- Tundra ponds of the Yukon Delta, Alaska, and their macroinvertebrate communities. Maciolek, J.A., (1989, p.193-206, eng) **44-86**

- Lower Rhine: geomorphological changes. Van Urk, G., et al. (1989, p.167-182, eng) **44-1251**

- Arctic data compilation and appraisal. Vol.16. Queen Elizabeth Is. Thomas, D.J., et al. (1986, 125p., eng) **44-1462**

- Arctic data inventory and appraisal. Vol.18. Canada Basin. Thomas, D.J., et al. (1986, 109p., eng) **44-1474**

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- Saving the North: notes from an international symposium on geocryology. Kliuchnikova, L.P., (1989, p.16-23, rus) **44-2655**

- Ecological consequences in the North from the expected warming. Tsarev, V.P., et al. (1990, p.15-19, rus) **44-2656**

- Making oil and gas development in arctic regions ecological. Shishov, V.N., et al. (1990, p.19-22, rus) **44-2657**

- Introduction to engineering ecology. Mazur, I.I., et al. (1989, 375p., rus) **44-3336**

- Sea ice: a habitat for the foraminifer *Neogloboquadrina pachyderma*? Dieckmann, G., et al. (1990, p.86-92, eng) **44-3824**

- Conference of arctic and nordic countries on coordination of arctic research; Proceedings, Pt.1 and Pt.2. (1990, 366p. + 445p., eng) **44-4061**

- Ecologic background monitoring in the Soviet Trans-Polar regions. Evseev, A.V., et al. (1990, p.255-262, eng) **44-4098**

- Environment around King Sejong Station, 1988-1989. Chang, S.K., et al. (1990, p.59-65, kor) **44-4253**

- Arctic research of the United States, Vol.4. (1990, 120p., eng) **44-4466**

- All-Union conference on ecological impact of oil and gas industry, 1988. (1989, 195p., rus) **44-4505**

- Oil and gas industry and ecological protection. Mazur, I.I., (1989, p.3-8, rus) **44-4506**

- Geocryological studies of oil- and gas-bearing areas. Grechishchev, S.E., et al. (1989, p.9-17, rus) **44-4507**

- Environmental protection of West Siberia during its industrialization. Zakharov, I.U.F., et al. (1989, p.17-26, rus) **44-4508**

- Oil and gas engineering in relation to the ecology in the North. Novikov, I.P., et al. (1989, p.26-39, rus) **44-4509**

- Oil and gas industry in tundra and ecological safety. Mazur, I.I., et al. (1989, p.49-57, rus) **44-4511**

- Ecological protection of pipeline routes, European North. Akul'shina, N.P., et al. (1989, p.65-72, rus) **44-4513**

- Environmental protection during construction of oil and gas systems. Gritsan, O.E., et al. (1989, p.98-101, rus) **44-4518**

- Developing of low-waste technology for well drilling in the Far North. Rubanova, N.A., et al. (1989, p.114-118, rus) **44-4521**

- Environmental protection in the gas-deposit areas of the Subarctic. Prokhorenkov, V.D., et al. (1989, p.160-165, rus) **44-4529**

- Environmental protection of areas of oil and gas development. Grodzinski, V.V., (1989, p.173-177, rus) **44-4531**

- Oil and gas industry in the Far North and its ecological protection. Zavizion, V.G., (1989, p.178-181, rus) **44-4532**

- See *also*: Ecosystems; Paleocology; Plant ecology

- Economic analysis**

- Cost effectiveness of avalanche countermeasures in the Apatit quarries. Chmerva, G.V., (1989, p.14-19, rus) **44-1564**

- Moscow's campaign to cut deficit jolts Soviet petroleum operations. (1989, p.17-20, eng) **44-1685**

- Evaluating the economic efficiency of road icing forecasts. Braginskaya, L.L., et al. (1989, p.38-43, rus) **44-4323**

- See *also*: Cost analysis

- Economic development**

- Problems in hydrological exploration of West Siberian swamplands. Novikov, S.M., (1988, p.108-118, rus) **44-100**

- International arctic research programs. Chung, J.S., comp. (1989, 74p., eng) **44-124**

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- Harnessing science and technology for cold regions. (1989, 28p., eng) **44-1828**

- Age of the Arctic: hot conflicts and cold realities. Osherenko, G., et al. (1989, 316p., eng) **44-1888**

- Global commons: the arctic in world affairs. Young, O.R., (1990, p.52-61, eng) **44-2955**

- Global commons—the Arctic in world affairs. Young, O.R., (1990, p.52-61, eng) **44-3111**

- Introduction to engineering ecology. Mazur, I.I., et al. (1989, 375p., rus) **44-3336**

- Proposed road construction in Hokkaido for the 21st century. (1989, p.5-34, jpn) **44-3562**

- See *also*: Land development; Landscape development; Natural resources

- Ecosystems**

- Tundra ponds of the Yukon Delta, Alaska, and their macroinvertebrate communities. Maciolek, J.A., (1989, p.193-206, eng) **44-86**

- Winter ecology. Schmid, W.D., (1986, p.335-340, eng) **44-278**

- Relic cryoxerophytic communities of the western Chukotski peninsula and their soils. Kozitskaia, L.T., et al. (1985, p.148-153, eng) **44-279**

- Phenological inversions in alpine terrain (western Tien Shan). Lynov, I.U.S., (1984, p.185-188, eng) **44-281**

- Methane flux time series for tundra environments. Whalen, S.C., et al. (1988, p.399-409, eng) **44-374**

- Mountain meadow soils of alpine lichen wastelands, northern Caucasus. Makarov, M.I., (1985, p.71-73, eng) **44-683**

- Interrelations of forest and swamp in a taiga zone. Glebov, F.Z., (1988, 182p., rus) **44-1719**

- Airphoto analysis of winter seismic disturbance in northeastern Alaska. Reynolds, M.K., et al. (1989, p.362-367, eng) **44-1935**

- Arctic oases. Struzik, E., (1989, p.38-49, eng) **44-2067**

- Ecological aspects of antarctic microbiology. Wynn-Williams, D.D., (1990, p.71-146, eng) **44-3253**

- Proceedings. (1989, 637p., eng) **44-3427**

- Role of ice margins and polynyas in high latitude ecosystems. Niebauer, H.J., et al. (1989, p.121-144, eng) **44-3428**

- Ecological features of the Barents Sea. Loeng, H., (1989, p.327-365, eng) **44-3429**

- Northern Svalbard waters. Strömberg, J.O., (1989, p.402-426, eng) **44-3430**

- Biological effect of oceanographic variations in the Iceland Sea. Stefánsson, U., et al. (1989, p.427-455, eng) **44-3431**

- All-Union conference on interactions of organisms in the tundra ecosystems, Vorkuta, Sep. 5-8, 1989. Summaries. (1989, 194p., rus) **44-3578**

- Microbial ecosystems of Antarctica. Vincent, W.F., (1988, 304p., eng) **44-3711**

- Oil pollution and stability of arctic marine ecosystems. Koronelli, T.V., et al. (1990, p.236-237, eng) **44-4095**

- Environmental protection in the Soviet North. Shekhovtsov, A.A., (1990, p.251-255, eng) **44-4097**

- Future response of arctic ecosystems to global warming. Chapin, F.S., et al. (1990, p.130-134, eng) **44-4111**

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- Arctic ecosystems, sea ice and global warming. Alexander, V., et al. (1990, p.206-211, eng) **44-4116**

- Reconstruction of the paleoclimate. Petersen, G.H., (1990, p.271-281, eng) **44-4118**

- See *also*: Ecology; Forest ecosystems; Paleocology; Plant ecology

- Education**

- Engineering geology, hydrogeology and geocryology departments. Sergeev, E.M., et al. (1989, p.86-110, rus) **44-1340**

- Glacier study course in Tarfala. Seppälä, M., (1989, p.252-258, fin) **44-2747**

- Using melting ice to teach radiometric dating. Wise, D.U., (1990, p.38-40,69, eng) **44-2754**

- Technology transfer. Eaton, R., (1990, p.25, eng) **44-3788**

- Elastic properties**

- Fiber composite materials in an arctic environment. Dutta, P.K., (1989, p.216-225, eng) **44-1412**

- In-situ measurement of elastic properties of sea ice. Brooke, G.H., et al. (1989, p.113-118, eng) **44-1741**

- Low temperature performance characteristics of elastomers. Thoman, R.A., Jr., (1989, 8p., eng) **44-2853**

- Ship-ice floe collision analysis. Matsushima, M., et al. (1984, p.E/1-E/13, eng) **44-3454**

- Elastomers for subzero oilfield use require careful property compromises. Pugh, T.L., (1990, p.12-16, eng) **44-4132**

- Role of alloying in changing properties of steels at low temperatures. Volosovich, P.I.U., et al. (1990, p.56-61, rus) **44-4350**

- Studies of the localization of plastic flow of metals at low temperatures. Eremin, V.I., et al, [1990, p.96-101, rus] **44-4358**
- Effect of stresses on technological strength of steels. Mikhailov, V.E., et al, [1990, p.150-153, rus] **44-4370**
- Multicyclic fatigue of fluoroplastics at low temperatures. Muradkhanov, V.A., et al, [1990, p.157-160, rus] **44-4372**
- Effect of stress concentration on local limit of viscosity. Novopashin, M.D., et al, [1990, p.172-176, rus] **44-4375**
- Elasticity tests under conditions of offset of the applied loads. Skripnik, N.V., [1990, p.219-224, rus] **44-4386**
- Effect of low temperatures on deformation of construction materials. Skripnik, I.U.D., et al, [1990, p.224-229, rus] **44-4387**
- Metals at cryogenic temperatures under magnetic exposure. Strizhalo, V.A., et al, [1990, p.233-237, rus] **44-4389**
- Using explosion to increase steel durability. Iakovleva, S.P., et al, [1990, p.264-269, rus] **44-4396**
- See *also*: Ice elasticity; Snow elasticity; Viscoelasticity
- Elastic waves**
- Crack propagation in aluminum materials at low temperature. Grabar, I.G., [1990, p.69-73, rus] **44-4352**
- Electric cables**
- See *also*: Transmission lines
- Electric charge**
- Ice accretion on a spherical hailstone model. Okudzhava, A.M., et al, [1988, p.136-139, rus] **44-69**
- Ice particle charge transfer studies. Saunders, C.P.R., [1987, 130p., eng] **44-1285**
- Fundamental characteristics of AC flashover on contaminated insulators covered with ice. Sato, M., et al, [1989, p.889-896, eng] **44-3434**
- On the mechanisms of the ice accretion on h.v. conductors. Teisseyre, Y., et al, [1990, p.1-8, eng] **44-3536**
- See *also*: Charge transfer; Static electricity
- Electric equipment**
- Sequential flash for photographing trajectories of saltating particles. Bird, K.G., et al, [1989, p.130-133, eng] **44-514**
- Photovoltaic installations in cold climates. Nilsson, A.O., [1986, p.143-148, eng] **44-1454**
- Wind-generators in hybrid systems powering remote telecommunication sites in the far north. Bredesen, B.R., et al, [1987, p.437-442, eng] **44-1456**
- Effect of hostile marine environments on the Al-Zn-In-Si sacrificial anode. Schriber, C.F., et al, [1988, p.70-77, eng] **44-1869**
- Cathodic protection for pipelines crossing the Mackenzie River. Wiskel, B.J., et al, [1989, p.15-19, eng] **44-1870**
- Operating a power station in arctic conditions. Feit, E., [1989, p.38-41, eng] **44-2096**
- Electric vehicle design considerations for cold weather operations. Adams, W.A., et al, [1989, 4p., eng] **44-2852**
- On the mechanisms of the ice accretion on h.v. conductors. Teisseyre, Y., et al, [1990, p.1-8, eng] **44-3536**
- Structural dynamics of electro-impulse de-icing on the Lear Fan Kevlar composite leading edge. Paramasivam, T., et al, [1985, p.4.768-4.776, eng] **44-4241**
- Temperature and stresses in a superconductor coil during freezing. Grenaderova, L.A., et al, [1990, p.73-78, rus] **44-4353**
- Electric fields**
- Methods of studying seasonally freezing and frozen ground. Orlov, V.O., ed, [1985, 76p., rus] **44-2362**
- Effect of an electrical field on cryogenic migration in finely dispersed soils. Novikova, E.V., [1985, p.9-13, rus] **44-2364**
- Electromagnetic noise collection in the Arctic. Scarzello, J.F., et al, [1989, p.260-265, eng] **44-3152**
- On the mechanisms of the ice accretion on h.v. conductors. Teisseyre, Y., et al, [1990, p.1-8, eng] **44-3536**
- Electric heating**
- Methods to reduce ice accumulation on miter gate recess walls. Rand, J.H., et al, [1989, 5p., eng] **44-3793**
- Reduced winter leakage in gates with J-seals. Rand, J.H., et al, [1989, 3p., eng] **44-3794**
- Electric potential**
- Electric potential and precipitation charge in the lower atmosphere. Asuma, Y., et al, [1987, p.991-998, eng] **44-1307**
- Electric power**
- Applied hydrology in the development of northern basins. [1988, 347p., eng] **44-232**
- Glaciological research for hydropower planning in Ilulissat/Jakobshavn, West Greenland. Thomsen, H.H., [1988, p.47-56, eng] **44-235**
- Environmental impacts of hydroelectric development in Greenland. Nygaard, K.H., et al, [1988, p.325-330, eng] **44-259**
- Hydroelectric power from glacier runoff at Bradley Lake, Alaska. Lawson, M., [1989, p.28-30, eng] **44-310**
- Glacial sediment and hydro-electric power. Bogen, J., [1989, p.6-11, eng] **44-538**
- Glacier surveys for planning hydro-electric power, West Greenland. Thomsen, H.H., et al, [1989, p.257-261, eng] **44-585**
- Evaluation of the Amundsen-Scott South Pole Station power source. Esper, J., [1988, p.18-19, eng] **44-1314**
- Photovoltaic installations in cold climates. Nilsson, A.O., [1986, p.143-148, eng] **44-1454**
- Small energy systems for telecommunications equipment in cold climate remote areas. Koloušek, M., [1986, p.317-324, eng] **44-1455**
- Wind-generators in hybrid systems powering remote telecommunication sites in the far north. Bredesen, B.R., et al, [1987, p.437-442, eng] **44-1456**
- Unconventional power sources for ice control at locks and dams. Nakato, T., et al, [1989, p.107-126, eng] **44-1771**
- Electrical supply installations for the Baykal-Amur mainline. Darchiev, S.Kh., et al, [1989, 175p., rus] **44-1826**
- Ice problems and ice research in Norway. Tesaker, E., [1989, p.233-245, eng] **44-2039**
- Thermal effect of power plants on an aqueous medium. Braslavskii, A.P., et al, [1989, 251p., rus] **44-2802**
- Seasonal runoff forecast for Kangerluarsunguaq near Nuuk/Godthåb, West Greenland. Braithwaite, R.J., [1990, 17p., eng] **44-3805**
- See *also*: Nuclear power; Wind power generation
- Electrical conductivity**
- See *also*: Electrical resistivity
- Electrical grounding**
- Electrical supply installations for the Baykal-Amur mainline. Darchiev, S.Kh., et al, [1989, 175p., rus] **44-1826**
- Electrical insulation**
- Snow effect on power line insulators. Imano, Y., et al, [1988, 49p., jpn] **44-1504**
- Voltage resistance of snow covered insulators on AC transmission lines. Takasu, K., et al, [1988, 65p., jpn] **44-3334**
- DC voltage resistance of snow covered insulators. Takasu, K., et al, [1988, 34p., jpn] **44-3335**
- Fundamental characteristics of AC flashover on contaminated insulators covered with ice. Sato, M., et al, [1989, p.889-896, eng] **44-3434**
- Electrical measurement**
- Thermal conductivity of a dendritic ice layer. Fukusako, S., et al, [1989, p.269-278, eng] **44-263**
- Permafrost geophysics in northern Quebec: review and recent developments. Seguin, M.K., et al, [1987, p.127-140, fre] **44-899**
- Snow dielectric measurements. Denoth, A., [1989, p.233-243, eng] **44-2597**
- Intrinsic photoconductivity of hexagonal ice. Khushnatinov, N.N., et al, [1990, p.401-408, eng] **44-3953**
- Electrical properties**
- Electrical discharges in the electrostatic field of thunder and hail clouds. Beltuganov, M.N., [1989, p.7-13, rus] **44-864**
- Photovoltaic installations in cold climates. Nilsson, A.O., [1986, p.143-148, eng] **44-1454**
- Estimating the polarizability of frozen samples. Romanov, V.P., et al, [1989, p.794-796, rus] **44-2573**
- Model for electrochemical reactions in frozen solutions. Gosser, D.K., Jr., et al, [1990, p.399-402, eng] **44-2947**
- See *also*: Dielectric properties; Geoelectricity; Ice electrical properties; Snow electrical properties
- Electrical prospecting**
- See *also*: Electromagnetic prospecting
- Electrical resistivity**
- Rock glaciers of the Argentine Andes. Barsch, D., et al, [1989, p.151-163, eng] **44-304**
- Geophysics of palaeo plateaus in northern Quebec. Gahé, E., et al, [1987, p.33-46, fre] **44-896**
- Permafrost geophysics in northern Quebec: review and recent developments. Seguin, M.K., et al, [1987, p.127-140, fre] **44-899**
- Determination of frost penetration by soil resistivity measurements. Atkins, R.T., [1989, p.87-100, eng] **44-1646**
- Electromagnetic studies on the Siple Coast, 1987-1988. Bentley, C.R., et al, [1988, p.56-58, eng] **44-1692**
- Bjerrum defects and proton conduction in a one-dimensional ice model. Sergienko, A.I., [1988, p.496-498, eng] **44-2057**
- Fundamental characteristics of AC flashover on contaminated insulators covered with ice. Sato, M., et al, [1989, p.889-896, eng] **44-3434**
- Device for measuring low temperature properties of electrically conducting materials. Buravoi, S.E., et al, [1988, p.100-104, eng] **44-3591**
- Proton mobility in liquid and frozen HClO₄-5.5H₂O: NMR and conductivity measurements. Huang, T.H., et al, [1988, p.6874-6876, eng] **44-3618**
- Soil electrical resistivity on King George I. Iribarren B., M., et al, [1990, p.95-100, spa] **44-3710**
- Intrinsic photoconductivity of hexagonal ice. Khushnatinov, N.N., et al, [1990, p.401-408, eng] **44-3953**
- Electricity**
- See *also*: Atmospheric electricity; Cloud electrification; Geoelectricity; Hailstone electrification; Static electricity
- Electromagnetic properties**
- Two-stream multilayer, spectral radiative transfer model for sea ice. Perovich, D.K., [1989, 17p., eng] **44-313**
- Basic electro-impulse problem in aircraft de-icing applications. Henderson, R.A., et al, [1987, 80p., eng] **44-1101**
- Airborne radar observations. Johansson, R., et al, [1988, p.119-147, eng] **44-1431**
- Electromagnetic methods of studying permafrost: a review. Akimov, A.T., et al, [1988, 46p., rus] **44-1493**
- Stereological characterization of dry alpine snow for microwave remote sensing. Davis, R.E., et al, [1989, p.245-251, eng] **44-2598**
- Electromagnetic soundings on Campbell Glacier and Gondwana Station. Kuhnke, F.K., et al, [1989, p.455-481, eng] **44-3053**
- Electromagnetic noise collection in the Arctic. Scarzello, J.F., et al, [1989, p.260-265, eng] **44-3152**
- Electromagnetic prospecting**
- Electromagnetic methods of studying permafrost: a review. Akimov, A.T., et al, [1988, 46p., rus] **44-1493**
- Measurement of sea ice thickness using electromagnetic induction. Holladay, J.S., et al, [1990, p.309-315, eng] **44-2240**
- Sea ice thickness measurement. Kovacs, A., et al, [1989, p.394-424, eng] **44-3159**
- Pore water salinities of Richards I. coastal sediments. Wolfe, S.A., et al, [1990, p.51-59, eng] **44-3643**
- Airborne sea ice thickness sounding. Kovacs, A., et al, [1990, p.225-229, eng] **44-3855**
- Electron microscopy**
- Electron microscope studies of aerosol particles collected during AGASP-II. Sheridan, P.J., [1989, p.267-282, eng] **44-2180**
- See *also*: Scanning electron microscopy
- Electron paramagnetic resonance**
- Opening of new decay channels for core-excited resonances. Michaud, M., et al, [1987, p.645-648, eng] **44-1820**
- Electronic equipment**
- Low-temperature performance of fast photomultipliers. McMillan, J.E., et al, [1989, p.377-382, eng] **44-119**
- Inexpensive polarimetric FM radar and polarimetric signatures of artificial sea ice. Gogineni, S.P., et al, [1989, p.188-191, eng] **44-3399**
- Digital low-frequency, surface-profiling ice-radar system. Wright, D.L., et al, [1990, p.112-121, eng] **44-3730**
- Elevation**
- See *also*: Altitude
- Embankments**
- Geosynthetics for road embankments in permafrost. Kinney, T.C., [1986, 53p., eng] **44-3408**
- Earth embankment with thermal insulation and nonfreezing drainage. Kuznetsov, G.I., et al, [1990, p.64-73, rus] **44-3944**
- Temperature regime of permafrost in railroad embankments. Minalov, G.P., [1990, p.146-153, rus] **44-4313**
- Features of ballasting and straightening of railroad tracks. Lykov, V.G., et al, [1990, p.5-6, rus] **44-4482**
- Engine starters**
- Improving low temperature startability of M113 vehicles. Stupich, T.F., et al, [1988, 226p., eng] **44-711**
- Methanol dissociator for engine cold start assist. Piotrowski, G.K., [1987, 17p., eng] **44-1283**
- Low temperature starting of a diesel engine. Dale, J.D., et al, [1984, 80p., eng] **44-1795**
- Cold weather operation of Detroit Diesel engines. [1989, 16p., eng] **44-2044**
- Characteristics of the starter in a two-phase thermosiphon. Shirikhin, I.U.N., [1989, p.114-118, rus] **44-2161**
- Effect of volatility changes on vehicle cold-start driveability. Abramo, L., et al, [1989, 20p., eng] **44-2858**
- Engineering**
- General report on engineering design. Gallavresi, F., [1989, p.477-479, eng] **44-922**
- Docks and marinas bibliography. Wortley, C.A., [1988, 46p., eng] **44-1220**
- Cold regions engineering research—strategic plan. Carlson, R.F., et al, [1989, p.172-190, eng] **44-1761**
- Proceedings. [1989, 245p., eng] **44-2017**
- Ice research and engineering in Finland. Mänttinen, M., [1989, p.134-142, eng] **44-2030**
- Ice engineering at Hamburgische Schiffbau-Vereinsanstalt. Schwarz, J., [1989, p.199-212, eng] **44-2036**
- Frost data in the Pacific Northwest. Molnau, M., et al, [1990, p.286-289, eng] **44-2996**
- Effect of global warming on arctic coastal and offshore engineering. Gerwick, B.C., Jr., [1990, p.1-5, eng] **44-3384**
- Cold regions engineering: climatic warming concerns for Alaska. Esch, D.C., et al, [1990, p.6-14, eng] **44-3385**

Engineering (cont.)

- Proceedings of the Fifth Canadian Permafrost Conference, 1989. (1990, 424p., eng) **44-3635**
- Climatic engineering. Covey, D.B., (1990, p.70-79, eng) **44-3920**
- Cryogenic engineering (problems of development). Filin, N.V., (1990, p.10-16, rus) **44-4340**
- Engineering of thermoplastics at cryogenic temperatures. Drozdov, V.V., (1990, p.91-95, rus) **44-4357**
- Oil and gas industry and ecological protection. Mazur, I.I., (1989, p.3-8, rus) **44-4506**
- Geocryological studies of oil- and gas-bearing areas. Grechishchev, S.E., et al., (1989, p.9-17, rus) **44-4507**
- Oil and gas engineering in relation to the ecology in the North. Novikov, I.P., et al., (1989, p.26-39, rus) **44-4509**
- Engineering effects on tundra in oil-production regions. Tentiukov, M.P., (1989, p.78-84, rus) **44-4515**
- Environmental protection during construction of oil and gas systems. Gritsan, O.E., et al., (1989, p.98-101, rus) **44-4518**
- Oil and gas industry in the Far North and its ecological protection. Zavizion, V.G., (1989, p.178-181, rus) **44-4532**
- See also: Avalanche engineering; Human factors engineering; Military engineering; Municipal engineering; Sanitary engineering

Engineering geology

- Congress of engineering geologists, hydrogeologists and geocryologists. Trofimov, V.T., et al., (1989, p.3-20, rus) **44-1252**
- Problems in engineering-geological research in the cryolithozone. Ershov, E.D., ed., (1989, 381p., rus) **44-1302**
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- Building structures on swelling clayey soils. Sorochan, E.A., (1989, 309p., rus) **44-2404**
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- Seminar on engineering geology and hydrogeology, 1989. (1989, 272p. (Pertinent p.124-129, 191-206, 237-239), rus) **44-3489**
- Engineering geological mapping. Gruzdrov, A.V., ed., (1989, 118p., rus) **44-3706**
- Engineering geological mapping of permafrost peat. Kashperuk, P.I., et al., (1989, p.83-89, rus) **44-3707**
- Structural geomorphological mapping for engineering geology. Kostenko, N.P., et al., (1989, p.96-103, rus) **44-3709**
- Linear structures on permafrost. Nekrasov, I.A., ed., (1990, 184p., rus) **44-4291**
- Engineering geological conditions of railroad construction in the upper Lena River Valley. Shevchenko, V.K., (1990, p.84-89, rus) **44-4305**
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- Achievements and prospects for development in modern geocryology. Mel'nikov, P.I., et al., (1989, p.3-17, rus) **44-4535**
- Planning engineering surveys in the cryolithozone using preliminary study results. Khristalev, L.N., et al., (1990, p.96-103, rus) **44-4537**

Engines

- Laboratory engine test study of motor oil flow properties in winter service. Johnson, R.S., (1984, p.6.81-6.93, eng) **44-1188**
- Low temperature pumpability of engine oils. Stambaugh, R.L., (1984, p.6.94-6.101, eng) **44-1189**
- Low temperature starts of fuel-injected alcohol engines. Siewert, R.M., et al., (1987, p.7.357-7.372, eng) **44-1195**
- Propulsion machinery concepts for icebreaking ships. Schmid, H., (1990, p.Q/1-Q/23, eng) **44-3479**
- Top it off and hold the ice. Haines, T.B., (1990, p.43-44, eng) **44-3584**
- Use of dimethyl ether as a starting aid for methanol-fueled SI engines at low temperatures. Kozole, K.H., et al., (1988, p.3.1079-3.1097, eng) **44-4247**
- Prevention of icing of gas turbine air-intake lines. Bakhanov, V.P., et al., (1988, p.21-28, eng) **44-4272**
- See also: Diesel engines; Jet engines

England**—Norfolk**

- Proglacial glaciectonic deformation and push moraine origin. Hart, J.K., (1990, p.165-180, eng) **44-4476**

Enthalpy

- Analytical and numerical methods on freezing and melting heat-transfer problems. Fukusako, S., et al., (1987, p.351-402, eng) **44-1476**
- Resolution of a two dimensional Stefan problem. Cames-Pintaux, A.M., et al., (1990, p.143-150, fre) **44-3656**
- Fast implicit finite-difference method for the analysis of phase change problems. Voller, V.R., (1990, p.155-169, eng) **44-3797**

Entrainment

See also: Air entrainment

Entrance heating

See also: Transition heating

Environment simulation

- Western Snow Conference, 57th, 1989. (1989, 150p., eng) **44-497**
- Assessing the effects of climatic changes on snowpack and streamflow. Cooley, K.R., (1989, p.118-121, eng) **44-511**
- Environmental processes and vegetation patterns in boreal forests. Bonan, G.B., (1989, 297p., eng) **44-966**
- Diagnostic strategies of an expert system for simulating snowmelt runoff. Engman, E.T., (1988, p.242-249, eng) **44-1410**
- Mathematical model of lake acidification. Goldstein, R.A., et al., (1985, p.1-8, eng) **44-1466**
- Predicting rangeland snowmelt runoff with SPUR hydrology model. Wilcox, B.P., et al., (1989, p.1351-1357, eng) **44-1560**
- Sagebrush rangeland hydrology and evaluation of the SPUR hydrology model. Wilcox, B.P., et al., (1989, p.653-666, eng) **44-1737**
- Climate sensitivity to continental ice sheet size and configuration. Shinn, R.A., et al., (1989, p.1517-1537, eng) **44-1947**
- Modeling soil freezing and thawing on a rangeland watershed. Flerchinger, G.N., et al., (1989, p.1551-1554, eng) **44-2593**

Environmental impact

- Environmental impacts of hydroelectric development in Greenland. Nygaard, K.H., et al., (1988, p.325-330, eng) **44-259**
- Establishment of *Salix alaxensis* on a gravel pad in arctic Alaska. Bishop, S.C., et al., (1989, p.575-583, eng) **44-321**
- Impact of vehicles on snow, soil and vegetation. Zhidkov, V.A., et al., (1989, p.124-131, rus) **44-346**
- Estimating the effects of wildfire on water supplies in the northern Rocky Mountains. Farnes, P.E., et al., (1989, p.90-99, eng) **44-508**
- Port and ocean engineering under arctic conditions. Proceedings, Vol.2. (1988, 111p., eng) **44-860**
- Responses of migrating narwhal and beluga to icebreaker traffic at the Admiralty Inlet ice-edge, N.W.T. in 1986. Cosens, S.E., et al., (1988, p.39-54, eng) **44-861**
- Evidence of glacial seismic events in the acoustic environment of humpback whales. Miles, P.R., et al., (1988, p.95-108, eng) **44-862**
- Comments on "Modeling adsorption/desorption kinetics of pesticides in a soil suspension". Leggett, D.C., (1989, p.231, eng) **44-1037**
- Overview of potential effects of rapid warming on the Canadian Arctic. Lonergan, S.C., (1989, p.404-468, eng) **44-1046**
- Environmental baseline studies of St. Mary's River near Neebish I. Liston, C.R., et al., (1983, 346p., eng) **44-1062**
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- Climate change: high latitude regions. Roots, E.F., (1989, p.223-253, eng) **44-1750**
- Impact of vehicles on snow, soil, and vegetation cover in the North. Zhidkov, V.A., et al., (1989, p.131-141, eng) **44-2441**
- Effects of pit fluids on water quality of tundra ponds in Alaska. West, R.L., et al., (1987, 49p., eng) **44-2943**
- Use of off-road vehicles and mitigation of effects in Alaska permafrost environments: a review. Slaughter, C.W., et al., (1990, p.63-72, eng) **44-3749**
- All-Union Conference on the Ecology of Oil and Gas Complexes, 1st, Naryn, Oct. 3-5, 1988. Summaries. (1988, 241p., rus) **44-3326**
- Introduction to engineering ecology. Mazur, I.I., et al., (1989, 375p., rus) **44-3336**
- Man and nature in the North: harmony of contrasts. Zimov, S.A., (1990, p.118-132, rus) **44-3758**
- Acute toxicity of petroleum hydrocarbons to the arctic littoral mysid *Mysis oculata* (fabricius). Riebell, P.N., et al., (1989, p.161-185, eng) **44-3800**
- Distribution of chlorinated hydrocarbon pesticides and PCBs in the Arctic Ocean. Hargrave, B.T., et al., (1989, 224p., eng) **44-3804**
- Permafrost and terrain research and monitoring: Norman Wells pipeline—volume II: research and monitoring results—1983-1988. MacInnes, K.L., et al., (1990, 204p., eng) **44-3807**
- Future response of arctic ecosystems to global warming. Chapin, F.S., et al., (1990, p.130-134, eng) **44-4111**
- Environmental considerations. McGuffey, V.C., et al., (1990, p.83-91, eng) **44-4268**
- Simulated oil spill from a pipeline in the Subarctic. Kershaw, G.F., (1990, p.176-183, eng) **44-4286**
- Environmental impact of pipelines and roads in Siberia. Khasanov, M.F., et al., (1990, p.31-37, rus) **44-4296**
- Effect of gas pipelines on permafrost. Belousov, V.F., et al., (1990, p.38-42, rus) **44-4297**
- Permafrost preservation and disturbance of moss and snow covers. Zabolotnik, S.I., (1990, p.157-167, rus) **44-4315**
- Oil and gas industry and ecological protection. Mazur, I.I., (1989, p.3-8, rus) **44-4506**
- Geocryological aspects of geology of gas deposits in Central Yakutia. Gravis, G.F., et al., (1989, p.57-65, rus) **44-4512**
- Engineering effects on tundra in oil-production regions. Tentiukov, M.P., (1989, p.78-84, rus) **44-4515**

Technical and ecological aspects of transportation in the North. Migirenko, G.S., et al., (1989, p.107-113, rus) **44-4520**

Developing of low-waste technology for well drilling in the Far North. Rubanova, N.A., et al., (1989, p.114-118, rus) **44-4521**

Ecological problems during construction of main pipelines. Vantik, V.K., et al., (1989, p.118-123, rus) **44-4522**

Development of preventive methods against soil erosion in pipeline areas. Babin, L.A., et al., (1989, p.129-133, rus) **44-4524**

Environmental protection

- Environmental protection problems in gas-bearing regions of Siberia. Popov, S.N., et al., (1988, p.187-197, rus) **44-314**
- To protect the environment of the Far North and build safe pipelines. Krasulin, I.D., et al., (1989, p.20-23, rus) **44-383**
- Good solution to the wilderness snow sensor problem. Brandow, C.A., (1989, p.108-117, eng) **44-510**
- Geocryology of the USSR Eastern Siberia and the Far East. Ershov, E.D., ed., (1989, 514p., rus) **44-703**
- Proceedings. (1989, 202p., eng) **44-1444**
- Cold regions environmental engineering: tomorrow's challenges. Smith, D.W., (1989, p.134-142, eng) **44-1790**
- Age of the Arctic: hot conflicts and cold realities. Osherenko, G., et al., (1989, 316p., eng) **44-1888**
- Saving the North: notes from an international symposium on geocryology. Kliuchnikova, L.P., (1989, p.16-23, rus) **44-2655**
- Global commons: the arctic in world affairs. Young, O.R., (1990, p.52-61, eng) **44-2955**
- Jerry Brown urges cooperation. (1989, p.1, eng) **44-2956**
- Development of technology for cold regions. Norway. Løset, S., (1988, p.65-87, eng) **44-3317**
- Introduction to engineering ecology. Mazur, I.I., et al., (1989, 375p., rus) **44-3336**
- Man and nature in the North: harmony of contrasts. Zimov, S.A., (1990, p.118-132, rus) **44-3758**
- Problems of the technology and organization of environmental protection during the construction of oil and gas industry facilities in the arctic regions. Review. Shishov, V.N., et al., (1990, Var.p., rus) **44-3990**
- Conference of arctic and nordic countries on coordination of arctic research; Proceedings, Pt.1 and Pt.2. (1990, 366p. + 445p., eng) **44-4061**
- Environmental protection in the Soviet North. Shekhovtsov, A.A., (1990, p.251-255, eng) **44-4097**
- Ecologic background monitoring in the Soviet Trans-Polar regions. Evseev, A.V., et al., (1990, p.255-262, eng) **44-4098**
- Arctic research of the United States, Vol.4. (1990, 120p., eng) **44-4466**
- All-Union conference on ecological impact of oil and gas industry, 1988. (1989, 195p., rus) **44-4505**
- Environmental protection of West Siberia during its industrialization. Zakharov, I.U.F., et al., (1989, p.17-26, rus) **44-4508**
- Oil and gas engineering in relation to the ecology in the North. Novikov, I.P., et al., (1989, p.26-39, rus) **44-4509**
- Gas industry and ecological safety in permafrost. Antonov-Druzhinin, V.P., et al., (1989, p.39-49, rus) **44-4510**
- Oil and gas industry in tundra and ecological safety. Mazur, I.I., et al., (1989, p.49-57, rus) **44-4511**
- Ecological protection of pipeline routes, European North. Akul'shina, N.P., et al., (1989, p.65-72, rus) **44-4513**
- Efficient use of gas condensers and crude oil in the Yakutsk ASSR. L'vova, Z.M., et al., (1989, p.72-78, rus) **44-4514**
- Environmental protection of permafrost during oil transport. Garris, N.A., et al., (1989, p.85-91, rus) **44-4516**
- Environmental protection during construction of oil and gas systems. Gritsan, O.E., et al., (1989, p.98-101, rus) **44-4518**
- Efficient use of gas production without environmental impact. Zemchikhin, V.E., et al., (1989, p.101-107, rus) **44-4519**
- Ecological effects of the Yamburg-Tsentr pipelines. Satarov, V.N., (1989, p.123-129, rus) **44-4523**
- Permafrost preservation during construction of oil and gas facilities. Masalkin, S.D., et al., (1989, p.134-139, rus) **44-4525**
- Tundra re-cultivation. Archegova, I.B., et al., (1989, p.139-143, rus) **44-4526**
- Environmental protection in the gas-deposit areas of the Subarctic. Prokhorenkov, V.D., et al., (1989, p.160-165, rus) **44-4529**
- Design of facilities for oil and gas industry in tundra. Rubanova, N.A., et al., (1989, p.165-169, rus) **44-4530**
- Environmental protection of areas of oil and gas development. Grodzinskii, V.V., (1989, p.173-177, rus) **44-4531**
- Oil and gas industry in the Far North and its ecological protection. Zavizion, V.G., (1989, p.178-181, rus) **44-4532**

Environmental tests

- Calcium magnesium acetate and sodium chloride as highway deicing salts. McCrum, R.L., 1989, p.24-28, eng. **44-2013**
- Analytical methods for detecting military-unique compounds. Jenkins, T.F., et al., 1989, p.13-14, eng. **44-3747**
- Influence of well casings on well water. Hewitt, A.D., et al., 1989, 9p., eng. **44-3761**
- Distribution of chlorinated hydrocarbon pesticides and PCBs in the Arctic Ocean. Hargrave, B.T., et al., 1989, 224p., eng. **44-3804**

Environments

- Remote sensing data on permafrost. Feng, X.Z., et al., 1988, p.128-135, chi. **44-644**
- Bering Sea data collection aboard USCGC *Polar Star*. Feb.-Mar. 1984, Vol.1. Voelker, R.P., et al., 1984, 259p., eng. **44-1214**
- See *also*: Arctic landscapes; Alpine landscapes; Deserts; Forest land; Landscape types; Littoral zone; Ocean environments; Planetary environments; Steppes; Subarctic landscapes; Taiga; Tundra

Eolian soils

- Sand sheet frost wedges in West Greenland. Dijkman, J.W.A., 1989, p.339-353, eng. **44-1684**

Equipment

- Snag-free snow blowing. Fischer, J., 1989, p.25-27, eng. **44-1094**
- Pressuremeter test of frozen ground and ice mechanics. Lemoigne, Y., et al., 1988, p.75-87, eng. **44-1130**
- Deep ice penetrator. Rychnovsky, R., 1988, p.323-336, eng. **44-1150**
- Designing E-plane funnels used in working frozen ground. Rikengla, L.E., et al., 1989, p.1-4, rus. **44-1381**
- Direct comparison of nondestructive, laboratory, and *in situ* testing. Anderson, M., et al., 1989, p.310-319, eng. **44-1667**
- Full scale pavement test international joint research. Dumont, A.G., et al., 1989, p.370-375, eng. **44-1672**
- Laboratory equipment for studies of frost susceptibility of soils. Stenberg, L., 1989, 29p., swe. **44-1822**
- Onset of freezing in residential air-to-air heat exchangers. Fisk, W.J., et al., 1985, p.145-158, eng. **44-2015**
- Heat exchanger performance with freezing and periodic defrosts. Fisk, W.J., et al., 1985, p.159-172, eng. **44-2016**
- Inter-relationship of frozen rocks with oil field equipment. Bel'mas, O.M., et al., 1989, p.79-88, rus. **44-2156**
- Oil recovery systems in ice. Smrke, D.J., et al., 1984, p.26-35, eng. **44-2431**
- Developments in ice stations of the US and other NATO countries. Stoliarov, N., 1989, p.72-73, rus. **44-2627**
- Equipment and systems that help control snow. 1989, p.41-42,45, eng. **44-3368**
- Snow-winging tips. 1921, p.44, eng. **44-3369**
- Plane truth about snow removal. 1990, p.52-56, eng. **44-3782**
- Climatic engineering. Coveney, D.B., 1990, p.70-79, eng. **44-3920**
- Elasticity tests under conditions of offset of the applied loads. Skripnik, N.V., 1990, p.219-224, rus. **44-4386**
- See *also*: Airborne equipment; Construction equipment; Electric equipment; Electronic equipment; Infrared equipment; Machinery; Military equipment; Photographic equipment; Portable equipment; Railroad equipment; Rescue equipment; Telemetering equipment; Test equipment

Erosion

- Erosion and human land-use in the Oreälven River valley, northern Sweden. Ivarsson, H., et al., 1988, p.137-150, swe. **44-94**
- Surface treatments for concrete. Husbands, T.B., et al., 1989, p.282-291, eng. **44-2515**
- Slope dynamics and cryogenic structure of active layer, Yakutia. Vasil'ev, I.S., 1989, p.143-152, rus. **44-3242**
- See *also*: Avalanche erosion; Bank protection (waterways); Glacial erosion; Ice erosion; Shore erosion; Snow erosion; Soil erosion; Water erosion; Wind erosion

Errors

- See *also*: Accuracy

Estuaries

- Transport of erratics in Finland and Estonia. Donner, J., 1989, p.7-13, eng. **44-4501**

Estuaries

- See *also*: Deltas

Europe

- Constraints on the subsurface structure of Europa. Golombek, M.P., et al., 1990, p.441-452, eng. **44-3581**

Evaporation

- Evaporation from ice surface during freezing. Yin, X.C., 1989, p.29-36, eng. **44-169**
- Evaporation from reservoir equipped with snow fence. Sturges, D.L., 1989, p.9-20, eng. **44-499**
- Evaporation from a discontinuous permafrost, Alaska. Ishikawa, N., et al., 1988, p.103-116, jpn. **44-735**
- Influence of the evaporation assessment method on the heat exchange during winter period. Jurak, D., 1989, p.93-106, eng. **44-2026**

- Salt redistribution and heave of saline soil during cooling. Chen, X.B., et al., 1989, p.231-238, chi. **44-2418**
- Effect of weather variability on the energy balance of a lake in the Hudson Bay lowlands, Canada. Belle, R., et al., 1990, p.98-107, eng. **44-2665**
- Evaporation of volatile liquids. Kawamura, P., et al., 1985, 54p., eng. **44-962**
- Isotopic peculiarities of meteoric water in polar regions. Wetzel, K., 1990, p.11-13, eng. **44-4141**
- See *also*: Evapotranspiration; Ice sublimation; Snow evaporation; Sublimation; Transpiration

Excavation

- Program of the symposium on ground freezing technology, 1988. Jessberger, H.L., 1989, p.407-411, eng. **44-916**
- Recent applications of soil freezing techniques in Spanish construction works. Rojo, J.L., et al., 1989, p.525-532, eng. **44-929**
- Suspended percussion devices for breaking frozen ground. Ivanov, R.A., et al., 1988, 142p., rus. **44-3121**
- See *also*: Earthwork; Pits (excavations); Rock excavation; Trenching; Tunneling (excavation)

Expansion

- See *also*: Thermal expansion

Expeditions

- Arctic research of the United States, Vol.3. 1989, 71p., eng. **44-471**
- Physiography and bathymetry of the Arctic Ocean seafloor. Weber, J.R., 1989, p.797-828, eng. **44-988**
- Report on the 26th Soviet Antarctic Expedition. 1989, 144p., rus. **44-3070**
- Observational manoeuvres. 1990, p.42-46, eng. **44-90**
- Operation Deep Freeze 89/90 end of season report. 1990, var. p., eng. **44-3327**
- Breaking through the Arctic. West, R.M., 1990, p.57-60, eng. **44-3781**
- See *also*: Traverses

Expenses

- See *also*: Cost analysis

Experimentation

- Sequential flash for photographing trajectories of saltating particles. Bird, K.G., et al., 1989, p.130-133, eng. **44-514**
- Flow of artificial avalanches. Lang, R.M., et al., 1989, p.146-153, eng. **44-564**
- New ideas in South Pole experiments. Seckert, D., 1989, p.61-63, eng. **44-2073**
- Using melting ice to teach radiometric dating. Wise, D.L., 1990, p.38-40,69, eng. **44-2754**

Exploration

- Arctic oases. Struzik, E., 1989, p.38-49, eng. **44-2067**
- Ice—the major challenge for petroleum exploitation in the Barents Sea. Jørgensen, T.S., 1988, p.181-194, eng. **44-3327**
- Impact of ice on petroleum exploration in the Barents Sea. Løset, S., et al., 1990, p.119-128, eng. **44-4076**

Explosion effects

- Detection of avalanches using atmospheric infrasound. Beaudouin, J., Jr., 1989, p.52-58, eng. **44-504**
- Mechanica effect of an explosion in soil. Luchko, I.A., ed., 1989, 231p., rus. **44-1399**
- Change in explosive waves with freezing of the ground. Liakhov, G.M., et al., 1989, p.352-357, eng. **44-3370**
- Using explosion to increase steel durability. Iakovleva, S.P., et al., 1990, p.264-269, rus. **44-4396**
- Explosive waves in snow. Liakhov, G.M., et al., 1990, p.493-499, eng. **44-4469**
- See *also*: Blasting; Ice blasting; Nuclear explosions

Explosives

- Safe use of explosives in avalanche blasting. Brugnot, G., et al., 1989, p.20-21, eng. **44-541**
- Battery actuation of NITINOL at sub-zero temperatures. Goldstein, D., 1989, 22p., eng. **44-793**
- Deep ice penetrator. Rychnovsky, R., 1988, p.323-336, eng. **44-1150**
- Low-temperature effects on systems for composting explosives-contaminated soils. Ayorinde, O.A., et al., 1989, 18p., eng. **44-2847**
- Fate and transport of contaminants in frozen soils. Ayorinde, O.A., et al., 1990, p.202-211, eng. **44-2964**
- Environmental transformation of nitroaromatics and nitramines. Walsh, M.E., 1990, 21p., eng. **44-3178**
- Effectiveness of using igd-nite A-6 to crush permafrost and hard rock. Samoilov, V.I., et al., 1988, p.22-29, rus. **44-3704**

- Analytical methods for detecting military-unique compounds. Jenkins, T.F., et al., 1989, p.13-14, eng. **44-3747**

- Determination of explosive residues in soil. Part 3. Bauer, C.F., et al., 1989, 89p., eng. **44-3757**

Exposure

- See *also*: Cold exposure; Orientation; Slope orientation

Extraterrestrial ice

- Hydrogen sulfide on Io: evidence from telescopic and laboratory infrared spectra. Nash, D.B., et al., 1989, p.454-457, eng. **44-42**
- Albedo patterns of Triton. Stansberry, J.A., 1989, p.961-964, eng. **44-364**

- Grain metamorphism in polar nitrogen ice on Triton. Zent, A.P., et al., 1989, p.965-968, eng. **44-365**
- Triton: scattering models and surface/atmosphere constraints. Thompson, W.R., 1989, p.969-972, eng. **44-366**

- Isidis basin: site of ancient volatile-rich debris layer. Grizzaffi, P., et al., 1989, p.358-381, eng. **44-378**
- Loss of water from Phobos. Fanale, F.P., et al., 1989, p.287-290, eng. **44-387**
- Heating of dust particles enclosed in icy material. Kömle, N.I., et al., 1989, p.193-195, eng. **44-525**
- Study of planetary gases with applications to planetary interior models. Bell, P.M., et al., 1988, 10p., eng. **44-721**

- Planetary geosciences, 1988. Zuber, M.T., et al., 1989, 113p., eng. **44-791**
- Infrared absorption features for tetrahedral ammonia ice crystals. West, R.A., et al., 1989, p.220-223, eng. **44-902**

- Accretion of impact jetted water ice on Pluto. McKinnon, W.B., 1989, p.1237-1240, eng. **44-1847**
- Crater relaxation on Ganymede: implications for ice rheology. Hillgren, V.J., et al., 1989, p.1339-1342, eng. **44-1848**

- Search for polar ice on moon by gamma ray spectroscopy. Metzger, A.E., et al., 1990, p.449-460, eng. **44-1908**

- Thermal state of an ice shell on Europa. Ojakangas, G.W., et al., 1989, p.220-241, eng. **44-1951**

- Polar wander of an ice shell on Europa. Ojakangas, G.W., et al., 1989, p.242-270, eng. **44-1952**

- How ionic meteorology is influenced by surface fronts. Ingersoll, A.P., 1989, p.298-313, eng. **44-1953**

- Evidence for residual CO₂ frost on the Martian south polar cap. Paige, D.A., et al., 1990, p.1319-1335, eng. **44-2284**

- Seasonal recession of Mars' south polar cap in 1986. James, P.B., et al., 1990, p.1337-1341, eng. **44-2285**

- Color and albedo of the south polar layered deposits on Mars. Herkenhoff, K.E., et al., 1990, p.1343-1358, eng. **44-2286**

- Year-to-year instability of the Mars south polar cap. Jakosky, B.M., et al., 1990, p.1359-1365, eng. **44-2287**

- Martian polar cap: radiative effects of ozone, clouds, and airborne dust. Lindner, B.E., 1990, p.1367-1379, eng. **44-2288**

- Sublimation and transport of water from the north residual polar cap on Mars. Haberle, R.M., et al., 1990, p.1423-1437, eng. **44-2290**

- H₂O grain size and the amount of dust in Mars' residual north polar cap. Kieffer, H.H., 1990, p.1481-1493, eng. **44-2294**

- Winter frost at Viking Lander 2 site. Svitek, T., et al., 1990, p.1495-1510, eng. **44-2295**

- Rocks and soil of the martian surface. Sidorov, I.U.I., et al., 1989, 222p., rus. **44-2797**

- First impressions of the comet drilling problem. Mello, M., 1989, p.229-232, eng. **44-2801**

- Neptune. Kinoshita, J., 1989, p.82-91, eng. **44-3258**

- Thermo-mechanical behavior of cometary nuclei. Green, J.R., 1990, 163p., eng. **44-3262**

- Water and the thermal evolution of carbonaceous chondrite parent bodies. Grimm, R.E., et al., 1989, p.244-280, eng. **44-3343**

- Miranda: color and albedo variations from Voyager photometry. Hillier, J., et al., 1989, p.314-335, eng. **44-3344**

- Albedo dichotomy of Rhea: Hapke analysis of Voyager photometry. Verbiscer, A.J., et al., 1990, p.336-353, eng. **44-3345**

- General overview of the surface of Mars pt.3. Jöns, H.P., 1990, p.131-164, ger. **44-3411**

- Constraints on the subsurface structure of Europa. Golombek, M.P., et al., 1990, p.441-452, eng. **44-3581**

- Compaction and internal structure of Mimas. Eluszkiewicz, J., 1990, p.215-225, eng. **44-3599**

- Pluto. Binzel, R.P., 1990, p.50-58, eng. **44-3921**

- Water regime of asteroid (1) Ceres. Fanale, F.P., et al., 1989, p.97-110, eng. **44-3968**

- Mass transfer during ice particle collisions in planetary rings. McDonald, J.S.B., et al., 1989, p.167-179, eng. **44-3969**

- Radar reflectivity of Titan. Muhleman, D.O., et al., 1990, p.975-980, eng. **44-4145**

Extraterrestrial material

- See *also*: Cosmic dust

Extreme

- See *also*: Records (extremes)

Facsimiles

- See *also*: Replicas

Falling bodies

- Radar measurement of the kinetic energy of hail. Abelaev, M.T., et al., 1989, p.89-97, rus. **44-372**

- General equation for the terminal fall speed of solid hydrometeors. Böhm, F.P., 1989, p.2419-2427, eng. **44-1227**

- Study of the calculation of terminal velocity of falling snowflakes. Suzuki, M., et al., 1988, p.27-32, jpn. **44-1308**

Fallout

- Chernobyl fallout in Greenland. Dibb, J.E., (1989, p.987-990, eng) 44-466
- Lichens as monitors of air pollution near a uranium mine. Kershaw, K.A., et al, (1989, 42p., eng) 44-2114
- Estimating the effects of rain and snow on potential reactor accident consequences. ApSimon, H.M., et al, (1986, p.235-242, eng) 44-2348
- Century old record of lead-210 fallout on the Greenland ice sheet. Nijampurkar, V.N., et al, (1990, p.29-38, eng) 44-3416
- Chernobyl fallout in Greenland ice. Dibb, J.E., (1990, p.51-54, eng) 44-4161

Farming

See *falsoy*: Agriculture

Fast ice

- Seasonal variation in sea water under fast ice at Showa Station. Fuchi, M., et al, (1985, p.42-43, jpn) 44-59
- Tidal currents in shallow fast ice covered regions. Prinsenberg, S.J., et al, (1989, p.1268-1278, eng) 44-117
- Digital processing of radar images acquired by the Kosmos-1500 satellite. Asmus, V.V., et al, (1989, p.529-543, eng) 44-188
- Frost weathering and ice action in shore platform development. Dionne, J.C., et al, (1988, p.117-130, eng) 44-217
- Relation of water movement near shelf ice edge to air-sea variables. Chu, P.C. (1987, p.31-42, eng) 44-291
- Measurements of infrared emissivity of thin sea ice. Aota, M., et al, (1988, p.195, jpn) 44-739
- Salinity and crystal structure of sea ice near a river mouth. Aota, M., et al, (1988, p.197-211, jpn) 44-740
- Boundary layer under fast ice, Hudson Bay, Canada. Shirasawa, K., et al, (1988, p.213-221, jpn) 44-741
- Breakup of antarctic fast ice. Crocker, G.B. et al, (1989, p.61-76, eng) 44-829
- Ice and snow geophysics in area 'I'. Leppäranta, M., et al, (1988, p.41-68, eng) 44-1426
- Helicopter impulse radar measurement. Ulriksen, P., (1988, p.149-151, eng) 44-1432
- Observations of sea ice influence on the littoral sediment exchange, North Zealand, Denmark. Nielsen, N., (1988, p.61-67, eng) 44-2577
- Regularity of ice formation conditions in Russkaya Station coastal zone. Korotkov, A.I., (1989, p.16-29, rus) 44-2820
- Boundary layer under fast ice. Shirasawa, K., et al, (1989, p.90-102, jpn) 44-3128
- Ice effects in tidal marsh development in Quebec. Dionne, J.C., (1989, p.171-210, eng) 44-3273
- Effects of elevated temperatures and rising sea level on Arctic coast. Barnes, P.W., (1990, p.21-28, eng) 44-3387
- Review of beach nourishment from ice transport of shoreface materials, Beaufort Sea, Alaska. Reimnitz, E., et al, (1990, p.439-469, eng) 44-3395
- Sea ice observations near Lützow-Holm Bay. Yoshida, Y., et al, (1990, p.8-14, eng) 44-3739
- Nitzschia* and related diatoms from arctic and antarctic fast ice. Medlin, L.K., et al, (1990, p.451-479, eng) 44-3992
- Influence of snowcover on the growth of antarctic fast ice. Crocker, G.B., (1989, p.156-164, eng) 44-4008
- Ocean waves at the edge of shore fast sea ice. Fox, C., et al, (1990, p.11,629-11,639, eng) 44-4237

Fatigue (materials)

- Polymer concrete-portland cement concrete composite members. Al-Negheimiah, A.I., (1989, 365p., eng) 44-977
- Crack propagation on floating structures in ice-infested waters. Swamidass, A.S.J., et al, (1988, p.527-537, eng) 44-1170
- Fatigue strength of polymer films at subzero temperature. Parfeyev, V.M., et al, (1988, p.685-693, eng) 44-1881
- Fatigue behavior of steel at low temperature. Kawai, Y., et al, (1986, p.551-556, jpn) 44-2498
- Fracturing in austenitic steel and nickel alloy at low temperatures. Aleksenko, E.N., et al, (1990, p.16-21, rus) 44-4341
- Crack propagation in aluminum materials at low temperature. Grabar, I.G., (1990, p.69-73, rus) 44-4352
- Evaluation of scaling effect in low-cycle fatigue. Dobrovolski, V.I., (1990, p.86-91, rus) 44-4356
- Effect of defect size on the strength of pipelines used in cold regions. Larionov, V.P., et al, (1990, p.127-130, rus) 44-4365
- Multicyclic fatigue of fluoroplastics at low temperatures. Muradkhanov, V.A., et al, (1990, p.157-160, rus) 44-4372
- Features of plastic deformation and failure of NT-50 cables. Pokhil, I.U.A., et al, (1990, p.191-197, rus) 44-4379
- Brittle-destruction criteria for alloy steel bending. Sarraf, V.I., et al, (1990, p.213-215, rus) 44-4384
- Effects of cryogenic media on fatigue resistance in steels. Sini, P.N., et al, (1990, p.215-219, rus) 44-4385
- Fatigue resistance of steel structures in the Far North. Shul'ginov, B.S., (1990, p.248-253, rus) 44-4392

Fauna

See *falsoy*: Animals

Feeding (hydrology)

See *falsoy*: Alimentation

Fences

See *falsoy*: Snow fences

Films

See *falsoy*: Water films

Filters

- Geotextiles and a new way to use them. Henry, K., (1988, p.214-222, eng) 44-420
- Ice segregation on a microporous filter. Ozawa, H., et al, (1989, p.567-568, eng) 44-938
- Cold-climate nitrifying biofilters: design and operation considerations. Gullicks, H.A., et al, (1990, p.50-57, eng) 44-2833

See *falsoy*: Optical filters

Filtration

See *falsoy*: Seepage

Flares

- Fines produced from aggregates in roadway construction. Vinson, T.S., et al, (1986, 74p., eng) 44-1247
- Determining the volume of unfrozen moisture by centrifugal separation. Sheveleva, N.N., (1985, p.21-26, rus) 44-2366

See *falsoy*: Frozen fines

Finland

- Arctic research program in Finland. Af Heurlin, M., et al, (1989, p.39-58, eng) 44-128
- Ice research and engineering in Finland. Mänttinen, M., (1989, p.134-142, eng) 44-2030
- Topography, microclimates and vegetation of eskers in Finland. Rikkinen, J., (1989, p.87-150, eng) 44-3616
- Effect of water depth on glaciolacustrine sedimentation. Fyfe, G.J., (1990, p.147-164, eng) 44-4475
- Proceedings of the Symposium: Transport of Glacial Drift in Finland. (1989, 74p., eng) 44-4500
- Transport of erratics in Finland and Estonia. Donner, J., (1989, p.7-13, eng) 44-4501
- Karelia
- Deglaciation pattern indicated by the ice-margin formations in Northern Karelia, eastern Finland. Eronen, M., et al, (1988, p.317-327, eng) 44-81
- Kilpisjärvi
- Kilpisjärvi project: case study of cold-regions research in Finland. McFadden, T., (1990, p.69-84, eng) 44-4488

—Lapland

- Relationships between ice sheet dynamics and bedrock relief. Kaitanen, V., (1989, p.1-15, eng) 44-64

Fires

- Fire safety analysis of the polar icebreaker replacement design. Richards, R.C., (1987, 165p., eng) 44-846
- Fire safety analysis of the polar icebreaker replacement design. Richards, R.C., (1987, 287p., eng) 44-847
- Fire safety analysis of the polar icebreaker replacement design. Richards, R.C., (1987, 283p., eng) 44-848
- Fire safety analysis of the polar icebreaker replacement design. Richards, R.C., (1987, 487p., eng) 44-849
- Effect of fires on some hydrophysical properties of soils. Tarabukina, V.G., et al, (1988, p.86-91, rus) 44-1966
- Contributions of burning of carbonaceous materials to arctic haze over Greenland. Radke, L.F., et al, (1989, p.161-167, eng) 44-2173

See *falsoy*: Forest fires

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- Snowmelt and water percolation in snow and firn. Bozhinski, A.N., et al, (1989, p.11-18, eng) 44-167
- Analysis of a 290-year net accumulation time series from Mt. Logan, Yukon. Holdsworth, G., et al, (1989, p.71-79, eng) 44-174
- Features of the firn of South Cascade Glacier, WA. Fountain, A.G., (1989, p.69-74, eng) 44-551
- Water desalination by freezing. Khodakov, V., et al, (1988, p.103-105, eng) 44-1467
- Radiocell soundings and geothermy at Mt. Melbourne. Delisle, G., et al, (1989, p.435-453, eng) 44-3052
- Fire stratification
- Stacking of basal debris layers in Greenland ice sheet. Knight, P.G., (1989, p.214-216, eng) 44-1548
- Siple Coast firn and ice studies: conclusion and prospects. Alley, R.B., et al, (1988, p.58-59, eng) 44-1693

Flexural strength

- Evaluating ice resistance mathematical models. Glen, I.F., et al, (1989, 107p., eng) 44-399
- Freeze-thaw resistance of concrete incorporating fly ash. Malhotra, V.M., et al, (1989, p.37-46, eng) 44-493
- Fracture toughness of columnar freshwater ice. Bentley, D.L., et al, (1989, p.7-20, eng) 44-826
- Ice loads on a rigid structure with a compliant foundation. Frerking, R.M.W., et al, (1988, p.409-418, eng) 44-1158

- Testing of instrumented airfield pavements, Manitoba, Canada. Ganapathy, G.V., (1989, p.234-265, eng) 44-1661

- Level ice resistance of USCGC *Polar Sea* in Antarctica. Voelker, R.P., et al, (1988, 94p., eng) 44-1944

- Tests of ice crushing on a flexible structure. Singh, S.K., et al, (1990, p.89-94, eng) 44-2211

- Theoretical investigation of the icebreaking cycle in 2-D. Valanto, P., (1990, p.111-126, eng) 44-2214

- Compressive and flexural strength of ice. Maeda, T., et al, (1989, p.364-369, jpn) 44-2900

- Penetration of floating ice sheets with cylindrical indentors. Sodhi, D.S., et al, (1989, p.104, eng) 44-3141

- Low temperature effect on flexural behavior of a cement composite. Currie, B., et al, (1989, p.149-152, eng) 44-3413

- Experience with a new type of model ice. Enkvist, E., (1984, p.11-15, eng) 44-3458

- Effect of ice friction on ship resistance. Williams, F.M., et al, (1990, p.81-87, eng) 44-3466

- Ice model tests for icebreaker design. Soininen, H., et al, (1990, p.11-15, eng) 44-3467

- Design of a new icebreaker. Molyneux, D., et al, (1990, p.1-11, eng) 44-3468

- Modelling of flexural-gravitational waves in continuous ice cover. Kozin, V.M., (1989, 4p., eng) 44-3732

- Modeling of flexural-gravity waves in continuous ice cover. Levshchanov, L.P., (1989, 5p., eng) 44-3733

- Hydraulically actuated test frame for the field determination of ice flexural properties. Demuth, M.N., et al, (1989, p.242-246, eng) 44-4021

- Evaluation of scaling effect in low-cycle fatigue. Dobrovolski, V.I., (1990, p.86-91, rus) 44-4356

Floating ice

- Long waves in channels with an ice cover. Debol'skaya, E.I., (1989, p.425-432, eng) 44-285

- Airborne SAR observations of ocean surface waves penetrating floating ice. Racz, R.K., et al, (1989, p.492-500, eng) 44-403

- Implications of ice surface features for SAR backscatter signatures. Drinkwater, M.R., (1989, p.501-513, eng) 44-404

- Effect of ice pressure on marginal ice zone dynamics. Flato, G.M., et al, (1989, p.514-521, eng) 44-405

- C-band SAR observations of marginal ice zone rheology in the Labrador Sea. Drinkwater, M.R., et al, (1989, p.522-534, eng) 44-406

- Failure of ice sheets under transverse loads. Wierzbicki, T., et al, (1988, p.369-380, eng) 44-1155

- High-capacity moorings and anchors for floating arctic platforms. Gerwick, B.C., (1988, p.451-457, eng) 44-1162

- Observation of the sound radiated by individual ice fracturing events. Soderberg, (1988, p.533-544, eng) 44-1708

- Acoustic wave propagation in horizontally stratified media. Schmidt, H., (1987, p.47-83, eng) 44-1742

- Acoustic measurements and applications of kinetic impact on ice. De Heering, P., (1987, p.611-617, eng) 44-1743

- Standing waves of a floating plate on the surface of a liquid. Gladun, O.M., et al, (1989, p.357-361, eng) 44-1946

- Model study of a floating ice barrier. Molnar, I., (1989, p.189-198, eng) 44-2035

- Refractive index structure parameter for a year over the frozen Beaufort Sea. Andreas, E.L., (1989, p.667-679, eng) 44-2091

- Some applications of a numerical model of floating sea ice platforms. Szilder, K., et al, (1990, p.61-66, eng) 44-2207

- Creep buckling analysis of a floating ice sheet moving against a structure. Luk, C.H., (1990, p.103-110, eng) 44-2213

- Theoretical investigation of the icebreaking cycle in 2-D. Valanto, P., (1990, p.111-126, eng) 44-2214

- Crowd induced deflection of a lake ice cover. Sinha, N.K., (1990, p.161-167, eng) 44-2220

- Creep and relaxation behavior of floating ice structures. Kenny, J., et al, (1990, p.183-193, eng) 44-2223

- Dynamic analysis of a floating ice sheet undergoing vertical indentation. McGilivray, W., et al, (1990, p.195-203, eng) 44-2224

- Relation of zonation of sponge communities to sea-level change in the arctic margin. Van Wagoner, N.A., et al, (1989, p.2341-2355, eng) 44-2275

- Dynamic response of narrow structures to ice crushing. Kärr, T., et al, (1989, p.173-187, eng) 44-3100

- Penetration of floating ice sheets with cylindrical indentors. Sodhi, D.S., et al, (1989, p.104, eng) 44-3141

- Ploughing boulders along shorelines, with particular reference to the St. Lawrence estuary. Dionne, J.C., (1988, p.297-308, eng) 44-3274

- Seismic exploration on a floating ice sheet. Rendleman, C.A., et al, (1990, p.402-409, eng) 44-3778

- Electrical, physical and microwave properties of snow-covered floating ice. Garrity, C., (1990, p.57-61, eng) 44-3819

- Notes on icebreaking with air cushion vehicles. Carter, D., (1989, p.5-23, eng) 44-4133

See *falsoy*: Ice flows

Floating structures

- Floating docks: today's choice for the Great Lakes. Wortley, C.A., (1987, 2p., eng) 44-1066

- High-capacity moorings and anchors for floating arctic platforms. Gerwick, B.C., (1988, p.451-457, eng) 44-1162

- Crack propagation on floating structures in ice-infested waters. Swamidas, A.S.J., et al. (1988, p.527-537, eng) 44-1170
- Response of semi-submersibles in ice environment. Arockiasamy, M., et al. (1985, p.33-46, eng) 44-1300
- Build-up of sea-ice platforms. Szilder, K., et al. (1989, p.169-178, eng) 44-1540
- Creep and relaxation behavior of floating ice structures. Kenny, J., et al. (1990, p.183-193, eng) 44-2223
- Wave-induced bergy bit motion near a floating platform. Mak, L.M., et al. (1990, p.205-215, eng) 44-2225
- Mobile offshore units operating in ice-infested waters. Nessim, M.A., et al. (1984, p.H/1-H/12, eng) 44-3457
- Ice cutters for mobility of offshore drilling structures. Slocum, R.W., (1984, p.N/1-N/9, eng) 44-3462
- Steel and concrete in arctic structures. Maddock, W.J., et al. (1984, O/O/1-O/9, eng) 44-3463
- Flood control**
- Ice formation downstream of Oahe Dam—1987-1988 winter. Ashton, G.D., (1988, 37p., eng) 44-226
- Floods caused by a glacier-dammed lake at the Folgefonna ice cap, Norway. Tvede, A.M., (1989, p.262-264, eng) 44-586
- Perturbation solution of the flood problem. Discussion and author's reply. Ferrick, M.G., (1988, p.346-349, eng) 44-612
- Ice release from a reservoir. Bakonyi, P., (1989, p.15-25, eng) 44-2019
- Flood forecasting**
- Flooding hydrology of Mackenzie Delta lakes. Marsh, P., et al. (1989, p.41-49, eng) 44-490
- Analysis of snow water equivalent data used in flood forecasting. Carroll, T.R., (1989, p.138-140, eng) 44-516
- Perturbation solution of the flood problem. Discussion and author's reply. Ferrick, M.G., (1988, p.346-349, eng) 44-612
- Method of estimating flood-frequency parameters for streams in Idaho. Kjelstrom, L.C., et al. (1981, 99p., + maps, eng) 44-824
- Uneven snow cover and snow water equivalent estimates. Carroll, S.S., et al. (1989, p.1505-1510, eng) 44-835
- Hydraulic characteristics of the Knik-Matanuska River estuary, Alaska. Lipscomb, S.W., (1989, 52p., eng) 44-1860
- Conditions for the formation and long-range forecasting of spring floods. Markova, E.E., (1989, p.53-61, rus) 44-2933
- Long-range forecasting of the extent and peak of spring floods in Siberia. Markova, E.E., et al. (1989, p.62-69, rus) 44-2934
- Flooding**
- Winter cover of a high-mountain Mediterranean lake (Estany Redó, Pyrenees). Catalan, J., (1989, p.519-527, eng) 44-6
- Jökulhlaups from Strandline Lake, Alaska (especially the 1982 event). Sturm, M., et al. (1989, 19p., eng) 44-395
- Planned reservoir and flooding the tongue of a glacier. Funk, M., et al. (1989, p.76-81, eng) 44-552
- National water summary 1983—hydrologic events and issues. (1984, 243p., eng) 44-1006
- Ship icebreaking resistance with flooding water effect. Wang, S.L., et al. (1990, p.127-134, eng) 44-2215
- Creep and relaxation behavior of floating ice structures. Kenny, J., et al. (1990, p.183-193, eng) 44-2223
- Ice breakup of the Nashua River, New Brunswick. Prowse, T.D., et al. (1989, p.142-155, eng) 44-4007
- Hydrological regime of lakes in the Mackenzie Delta, Northwest Territories, Canada. Bigras, S.C., (1990, p.163-174, eng) 44-4049
- Lake Agassiz and its contribution to flow through the Ottawa-St. Lawrence system. Teller, J.T., (1988, p.281-289, eng) 44-4458
- Floodplains**
- Hydrothermal regime of frozen flood-plain soils. Savvinov, D.D., (1988, p.4-18, rus) 44-1959
- Moisture regime of cultivated frozen flood-plain meadow soils. Baishev, S.I., (1988, p.30-37, rus) 44-1961
- Floods**
- Modelling extreme effective precipitation. Bergström, S., et al. (1988, p.191-197, eng) 44-248
- Jökulhlaups from Strandline Lake, Alaska (especially the 1982 event). Sturm, M., et al. (1989, 19p., eng) 44-395
- Glacier outburst floods at Mount Rainier, Washington State, U.S.A. Driedger, C.L., et al. (1989, p.51-55, eng) 44-548
- Risks from glacier hazards in the Swiss Alps. Haebeli, W., et al. (1989, p.96-102, eng) 44-555
- National water summary 1984. (1985, 467p., eng) 44-1007
- Jökulhlaups from ice-dammed lake in Greenland. Russell, A.J., (1989, p.157-162, eng) 44-1538
- Peak discharge from ice-dammed Ape Lake, British Columbia. Desloges, J.R., et al. (1989, p.349-354, eng) 44-1896
- Floods and droughts in Lake River basin—the hydrograph shape. Buchtele, J., (1989, p.133-142, eng) 44-2191
- Snowmelt caused by pyroclastic surge at Mount St. Helens volcano, 1980. Watt, R.B., (1989, p.138-157, eng) 44-2350
- Hydrology of floods in Canada: a guide to planning and design. Watt, W.E., ed. (1989, 245p., eng) 44-2763
- Conditions for the formation and long-range forecasting of spring floods. Markova, E.E., (1989, p.53-61, rus) 44-2933
- Long-range forecasting of the extent and peak of spring floods in Siberia. Markova, E.E., et al. (1989, p.62-69, rus) 44-2934
- Ice jams and ice jam floods in the lower Vistula. Grzes, M., (1985, p.499-525, pol) 44-2938
- Frozen soil, runoff and soil erosion research in northeastern Oregon. Zuzel, J.F., et al. (1990, p.4-10, eng) 44-2960
- Field and laboratory techniques for frozen and thawing soil. McCool, D.K., et al. (1990, p.271-278, eng) 44-2994
- Study on jökulhlaups (glacier outburst floods) of the Yarkant River. Chen, Y.N., et al. (1989, p.169-177, eng) 44-3167
- Drumlins, subglacial meltwater floods, and ocean responses—comment and reply. Kehew, A.E., et al. (1990, p.479-480, eng) 44-4144
- Flora**
- See (also): Plants (botany); Vegetation
- Flow**
- See (also): Air flow; Fluid flow; Glacier flow; Laminar flow; Pipe flow; Plastic flow; Rheology; River flow; Shear flow; Stream flow; Turbulent flow; Unsteady flow; Viscous flow; Water flow
- Flow control**
- Flow in the diffuser section of the NASA Lewis icing research tunnel. Addy, H.E., et al. (1989, 13p., eng) 44-792
- Flow measurement**
- Experimental mapping of the flow field behind a glaze ice shape. Spring, S.A., (1988, 84p., eng) 44-991
- Hydraulic characteristics of the Knik-Matanuska River estuary, Alaska. Lipscomb, S.W., (1989, 52p., eng) 44-1860
- Streamflow measurement under winter ice conditions in Manitoba. Pelletier, P.M., (1989, p.1857-1867, eng) 44-2124
- Snowmelt runoff studies in upper Yamuna basin. Parsad, R.S., et al. (1989, p.213-218, eng) 44-4015
- Flow rate**
- Errors in rating of suspended sediment transport during ablation seasons. Fenn, C.R., (1989, p.64-68, eng) 44-550
- Contribution of viscous forces to avalanche dynamics. Nishimura, K., et al. (1989, p.202-206, eng) 44-574
- Avalanche formation and snow fences. Yoshida, Z., et al. (1988, p.45-56, jpn) 44-731
- Boundary layer under fast ice, Hudson Bay, Canada. Shirasawa, K., et al. (1988, p.213-221, jpn) 44-741
- New techniques for slush ice run measurement in Poland. Dobrowolski, A., et al. (1989, p.46-54, eng) 44-2022
- Determination of the resistance of the underside of ice cover. Majewski, W., et al. (1989, p.152-167, eng) 44-2032
- Uranium-series dating of tephra-banded Allan Hills ice. Fireman, E.L., (1989, p.335-343, eng) 44-2245
- Transit-Doppler measurements of the Filchner Ice Shelf motion in 1984. Ellmer, W., et al. (1987, p.399-410, ger) 44-3084
- Report on improving the accuracy of winter flow observations. Hiragaki, T., et al. (1989, p.39-44, jpn) 44-3588
- Is the antarctic ice sheet disintegrating. Kamb, B., (1990, p.4-13, eng) 44-3751
- See (also): Water transport
- Fluid dynamics**
- Orthogonal curvilinear coordinate generation for internal flows. Albert, M.R., (1988, p.425-433, eng) 44-616
- Effects of subcooling on melting on a vertical wall. Okada, M., et al. (1988, p.56-68, eng) 44-688
- Fluid flow**
- Fuel holdup and component diffusivity in a cooled cylindrical tank. Leo, A., et al. (1989, p.465-469, eng) 44-39
- Multiphase flows in porous media. Morel-Seytoux, H.J., (1987, p.103-174, eng) 44-307
- Studies of granular avalanche flow. Hutter, K., et al. (1989, p.109-116, eng) 44-557
- Slush-flow questionnaire. Onesti, L.J., et al. (1989, p.226-230, eng) 44-579
- Solidification interface shape in cooling fluid flow. Hasegawa, E., et al. (1987, p.32-48, eng) 44-1337
- Flow and heat transfer in an inclined, closed tube thermosyphon. Lock, G.S.H., et al. (1988, p.205-213, eng) 44-1417
- Effect of fluid flow on the development of preferred orientations in sea ice: laboratory experiments. Stander, E., et al. (1989, p.153-161, eng) 44-3098
- Shape of bodies formed during solidification of fluid flow. Kornev, K.G., et al. (1990, p.773-778, eng) 44-3112
- Fluvial outbursts and cryokarstic processes on Mars and in Siberia. Costard, F., (1990, p.97-104, fre) 44-3534
- Study of water saturated porous media in the presence of convection. Chelliah, S., (1988, 196p., eng) 44-4499
- See (also): Air flow; Glacier flow; Laminar flow; Pipe flow; River flow; Stream flow; Turbulent flow; Unsteady flow; Water flow
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- See (also): Seepage
- Fluid mechanics**
- Orthogonal curvilinear coordinate generation for internal flows. Albert, M.R., (1988, p.425-433, eng) 44-616
- Flow of granular materials. Savage, S.B., (1989, p.241-266, eng) 44-1090
- Fluid mechanics of solidification. Huppert, H.E., (1990, p.209-240, eng) 44-4245
- Fluids**
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- Bibliography on ice and fog: detection and warning systems. (1988, 47p., eng) 44-1082
- Foliage**
- See (also): Forest canopy
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- Wave uplift forces exerted upon caisson-type breakwaters. Kadono, T., et al. (1988, p.465-475, eng) 44-1164
- Interaction between shallow foundations in tamped (punched) trenches and heaving soil. Sazhin, V.S., et al. (1990, p.152-156, eng) 44-3255
- See (also): Foundations; Pavement bases; Permafrost bases
- Forecasting**
- Assessing and forecasting the stability of landslide slopes. Tikhvinskii, I.O., (1988, 143p., rus) 44-35
- Procedure for predicting propeller-ice interaction forces. Chernuka, M.W., et al. (1989, 263p., eng) 44-391
- Interfacing geographic data with real-time hydrologic forecasting models. Eagle, T.C., et al. (1989, p.857-861, eng) 44-425
- Weather station drift in the Beaufort Sea coastal ice zone. Lipoma, P., (1988, p.301-310, eng) 44-1148
- Forecasting the structural characteristics of soils. Busel, I.L., (1989, 245p., rus) 44-1753
- Water flow into reservoirs of large hydroelectric plants. Dement'ev, N.F., et al. (1988, p.58-63, eng) 44-1836
- Potential effectiveness of thermal melioration of frozen soil. Romanov, P.G., et al. (1988, p.104-113, rus) 44-1968
- Aid to forecasting heavy snowfall episodes. Auer, A.H., Jr., (1987, p.11-14, eng) 44-2085
- DDT II: computerized lake-effect snow forecasts. Dockus, D.A., (1988, p.18-26, eng) 44-2088
- Operational snow accumulation and snowmelt modeling. Vehviläinen, B., (1989, p.213-222, eng) 44-2193
- Determining the average annual temperature of permafrost. Khristalev, L.N., et al. (1989, p.102-107, rus) 44-2519
- Frost-resistance of concrete. Clifton, J.R., (1990, 22p., eng) 44-2816
- Prediction of pavement layer temperature during winter months using a computer model. Huber, G.A., et al. (1988, p.2-19, eng) 44-2811
- Premature breakup of river ice cover. Abdel-Zaher, A.K., et al. (1989, p.59-73, eng) 44-3999
- See (also): Avalanche forecasting; Flood forecasting; Frost forecasting; Ice forecasting; Long range forecasting; Permafrost forecasting; Runoff forecasting; Weather forecasting
- Forest canopy**
- Evaporation from a discontinuous permafrost, Alaska. Ishikawa, N., et al. (1988, p.103-116, jpn) 44-735
- Effects of forests on snow reserves and snow melting. Rubtsov, M.V., et al. (1986, p.8-13, eng) 44-1731
- Modelling climatic influences on permafrost at a boreal forest site. Rieborough, D.W., (1985, 172p., eng) 44-2953
- Snow cover energy and mass balance model in a balsam fir forest. Barry, R., et al. (1990, p.1079-1092, eng) 44-4130
- Forest ecosystems**
- Formation of the chemical composition of snow in polluted spruce forests. Evtyugina, Z.A., (1988, p.55-59, rus) 44-195
- Environmental processes and vegetation patterns in boreal forests. Bonan, G.B., (1989, 297p., eng) 44-966
- Forest transitions and buried glacial outwash. Dodge, S.L., (1989, p.137-144, eng) 44-2619
- Geological aspects of episodic permafrost expansion. Kullman, L., (1989, p.255-262, eng) 44-2626
- Litter decomposition beneath deep snow in temperate climates. Taylor, B.R., (1989, p.223-227, eng) 44-4017
- Variability of snowcover as a factor in forest decline. Auclair, A.N.D., (1989, p.228-231, eng) 44-4018

Forest fires

- Temperature regime of frozen soils on burns in northern Yakutia. Stepanov, G.M., [1988, p.76-82, eng] 44-222

- Estimating the effects of wildfire on water supplies in the northern Rocky Mountains. Farnes, P.E., et al, [1989, p.90-99, eng] 44-508

- Recovery of mountain tundra with unsorted circles after a fire. Pavlov, B.A., [1989, p.51-59, eng] 44-1002

- Forest fires and the chemical composition of snow cover. Ivanov, A.V., et al, [1989, p.3-14, rus] 44-4221

Forest land

- Hydrological model input accuracy in determination of water yield. Stednick, J.D., [1989, p.36-44, eng] 44-502

- Calibrated L-band terrain measurements and analysis program. Larson, R.W., et al, [1987, 106p., eng] 44-1233

- Interrelations of forest and swamp in a taiga zone. Glebov, F.Z., [1988, 182p., rus] 44-1719

- Frozen soil impacts on agricultural, range, and forest lands. Saxton, K.E., et al, [1990, p.1-3, eng] 44-2959

- Chemistry of snow pack accumulation and melt in a deciduous forest. Robertson, E., et al, [1989, p.219-222, eng] 44-4016

- Snowpack water losses during melt in a deciduous forest. Buttle, J., et al, [1989, p.267-271, eng] 44-4025

Forest lines

- Snow line and timber line, Qinghai-Xizang Plateau. Wu, X.H., [1989, p.113-124, chi] 44-2406

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- Temperature regime of frozen soils on burns in northern Yakutia. Stepanov, G.M., [1988, p.76-82, eng] 44-222

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- Snow cover, freezing and thawing of soil in pine forests. Korepanov, A.A., [1989, p.64-68, rus] 44-2352

- Soil freezing in a subarctic deciduous forest. Hinzman, L.D., et al, [1990, p.21-30, eng] 44-2962

- Meltwater solute concentrations at a forested site. Peters, N.E., et al, [1989, p.45-56, eng] 44-3998

- Snow and ground thermal regimes in a subarctic woodland. Desrochers, D.T., [1989, p.172-183, eng] 44-4010

- Snowmelt runoff modeling in a balsam fir forest. Prévost, M., et al, [1990, p.1067-1077, eng] 44-4271

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- Construction and maintenance of snowbreak forest on Douu Expressway. Utsumi, H., et al, [1988, p.190-195, jpn] 44-2683

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Forest tundra

- Relic cryoxerophytic communities of the western Chukotski peninsula and their soils. Kozitskaia, L.T., et al, [1985, p.148-153, eng] 44-279

- Vegetated platforms of Lac à l'Eau Claire, subarctic Québec. Bégin, Y., et al, [1989, p.39-50, fre] 44-1031

Forestry

- Water conservation and protection functions of forests of Sakhalin. Klintsov, A.P., [1986, p.51-55, eng] 44-317

Fossils

- Upper Miocene sediments beneath the Ross Ice Shelf. Harwood, D.M., et al, [1989, p.91-115, eng] 44-1941

Foundations

- Reinforcing and stabilizing buildings on sagging loess soils. Gilman, I.A.D., [1989, 159p., rus] 44-9

- Effect of pile foundations on the temperature regime of permafrost. Smirnov, V.N., et al, [1989, p.71-73, rus] 44-97

- Foundation design against frost action in Europe. Farouki, O.T., [1988, 365p., eng] 44-804

- Radial adfreezing of permafrost in the basement of buildings. Maksimov, G.N., et al, [1989, p.491-496, eng] 44-925

- Recent applications of soil freezing techniques in Spanish construction works. Rojo, J.L., et al, [1989, p.525-532, eng] 44-929

- Bearing capacity of the foundations of offshore structures. Sekiguchi, K., [1988, p.419-429, eng] 44-1159

- Frost protection of building foundations by thermal insulation. Greeley, D.S., [1989, p.695-710, eng] 44-1362

- Interaction of surface foundations with heaving soil during deep freeze. Babello, V.A., et al, [1989, p.117-120, rus] 44-1503

- Pavement design with the pavement pressuremeter. Briand, J.L., et al, [1989, p.170-179, eng] 44-1655

- Formation of frozen-ground conditions in the foundations of buildings. Gurinov, V.N., et al, [1989, p.72-79, rus] 44-2155

- Modeling the design of bases and foundations on permafrost. Agalakov, S.E., et al, [1989, p.132-135, rus] 44-2164

- Foundation performance of gravity base structures. McCarron, W.O., [1990, p.1-8, eng] 44-2200

- Nonlinear response of undrained soil under unsymmetric loading. Prasad, K.S.R., et al, [1990, p.67-74, eng] 44-2208

- Thermal stabilization of permafrost with thermosyphons. Zarling, J.P., et al, [1990, p.323-328, eng] 44-2242

- Response of a Beaufort Sea clay to monotonic and cyclic loading. McCarron, W.O., et al, [1990, p.329-336, eng] 44-2243

- Building structures on swelling clayey soils. Sorochan, E.A., [1989, 309p., rus] 44-2404

- Raised and unventilated pile foundation in permafrost. Li, Y.W., et al, [1989, p.167-171, chi] 44-2411

- Foundations using thermal insulation against frozen ground. Fujimura, S., et al, [1987, p.288-293, jpn] 44-2541

- Thawing seasonally frozen soils using a low-temperature plasma. Zadovornev, G.A., et al, [1989, p.41-44, eng] 44-2575

- Interaction between shallow foundations in tamped (punched) trenches and heaving soil. Sazhin, V.S., et al, [1990, p.152-156, eng] 44-3255

- Experience with foundations stabilized with thermosyphons. Zarling, J.P., et al, [1990, p.365-370, eng] 44-3683

- Performance of heat pump chilled foundations. Goodrich, L.E., et al, [1990, p.409-418, eng] 44-3689

- Effect of frost-heave forces of soils on the bearing capacity of pyramidal piles. Bakholdin, B.V., et al, [1990, p.243-248, eng] 44-4419

- Effect of construction of foundations on permafrost thermal regime. Gorbacheva, V.M., et al, [1989, p.92-98, rus] 44-4517

- Concrete for pile foundations in permafrost regions. Ivanov, F.M., et al, [1989, p.11-12, rus] 44-4539

- See *also*: Pavement bases; Permafrost bases; Roadbeds

Fracturing

- Model of initial failure in slab-avalanche release. Gubler, H., et al, [1989, p.90-95, eng] 44-554

- Supporting forces and stability of snow-slab avalanches: a parameter study. Lackinger, B., [1989, p.140-145, eng] 44-563

- Analysis of dynamic penetration of Arctic Sea ice using energy partitioning. Swearingen, J.C., [1989, p.254-257, eng] 44-1199

- Fracture of multi-year sea ice under triaxial stress. Sammonds, P.R., et al, [1989, p.258-263, eng] 44-1200

- Fracture of concrete at cryogenic temperatures. Elices, M., et al, [1989, p.106-116, eng] 44-1736

- Internal cracking and brittle fracture of compressed ice. Schulson, E.M., et al, [1989, p.378-382, eng] 44-1899

- Fracture toughness of porous ice with and without particles. Smith, T.R., et al, [1990, p.241-246, eng] 44-2230

- Fracture experiments on S2 columnar freshwater ice. DeFranco, S.J., et al, [1990, p.247-252, eng] 44-2231

- Notch acuity effects on the fracture toughness of freshwater ice. Wei, Y., et al, [1990, p.253-257, eng] 44-2232

- Use of ultrasound technique to monitor freezing and thawing of water in plants. Raschi, A., et al, [1989, p.411-418, eng] 44-2946

- Materials aspects for arctic vessels. Tomin, M.J., [1990, p.Y1-Y10, eng] 44-3486

- Safety of liquid carbon dioxide storage vessels. Coleman, T., [1989, p.29-30, eng] 44-3696

- Metallurgical approach to brittle-to-ductile-transition temperature. Huang, Z., [1990, p.185-194, eng] 44-3954

- Fracturing in austenitic steel and nickel alloy at low temperatures. Aleksenko, E.N., et al, [1990, p.16-21, rus] 44-4341

- Test methods for crack-resistance of structural steels under dynamic load. Basko, E.M., et al, [1990, p.28-32, rus] 44-4344

- Effect of low temperature on fracture resistance of steels. Kashlian, I.U.A., et al, [1990, p.110-113, rus] 44-4361

- Ultimate loads on fractured parts at low temperatures. Kostenko, N.A., et al, [1990, p.114-119, rus] 44-4362

- Effect of defect size on the strength of pipelines used in cold regions. Larionov, V.P., et al, [1990, p.127-130, rus] 44-4365

- Crack resistance of pipe welds. Mindlin, V.G., et al, [1990, p.146-150, rus] 44-4369

- Low-temperature strengthening of materials. Ostash, O.P., et al, [1990, p.176-181, rus] 44-4376

- A method for evaluation of fracture resistance in metals. Savrasov, V.V., [1990, p.207-210, rus] 44-4382

Fram Strait

- Fram Strait ice flux calculations and associated arctic ice conditions. Englebreton, R.E., et al, [1989, p.61-67, eng] 44-2297

- Oceanic heat flux in the Fram Strait measured by a drifting buoy. Perovich, D.K., et al, [1989, p.995-998, eng] 44-467

- Measuring the length of an ice floe trajectory. Hoerber, H., [1989, p.347-349, eng] 44-764

- Numerical study of topographically steered flows in the Fram Strait. McShane, D.W., [1989, 44p., eng] 44-1521

- Acoustic ambient noise in the Arctic Ocean below the marginal ice zone. Buckingham, M.J., et al, [1988, p.583-598, eng] 44-1712

France

—Alps

- Forty years of mass-balance observations on Glacier de Sarennes, French Alps. Valla, F., [1989, p.269-272, eng] 44-588

- Pro-glacial lake in the French Alps. Valloir, M., [1989, p.273-278, eng] 44-589

- Satellite surveillance of ice and snow cover in French Alps. Dedieu, J., et al, [1988, p.371-375, fre] 44-954

- Plant and soil groups in the alpine grasslands of the Vanoise Massif, French Alps. Gensac, P., [1990, p.195-201, eng] 44-4051

—Blanc, Glacier

- Past and forecast fluctuations of Glacier Blanc (French Alps). Létréguilly, A., et al, [1989, p.159-163, eng] 44-566

—Mer de Glace

- Lichen weathering as mass balance change indicator for an Alpine glacier. Mahaney, W.C., [1987, p.411-418, eng] 44-1453

Frazil ice

- Characteristics of Breid Bay first-year sea ice. Tison, J.L., et al, [1989, p.261-268, eng] 44-64

- Minimization of frazil-ice production by river flow regulation. Jain, S.C., et al, [1989, p.1256-1274, eng] 44-120

- Intake design for ice conditions. Ashton, G.D., [1988, p.107-138, eng] 44-308

- Frazil and anchor ice and their role in ice cover development. Gosink, J.P., et al, [1989, 430p., eng] 44-718

- Time estimation for maximum supercooling in dynamic frazil ice formation. Daly, S.F., et al, [1989, 13p., eng] 44-776

- Cryogenic sampling of frazil ice deposits. Chacho, E.F., Jr., et al, [1989, 6p., eng] 44-778

- Algae concentrated by frazil ice. Garrison, D.L., et al, [1989, p.313-316, eng] 44-1489

- Rapid frazil ice production in coastal polynya. Ushio, S., et al, [1989, p.117-126, eng] 44-1809

- Determining ice content of a fine ice slurry from density measurements. Dickey, L.C., et al, [1989, p.2033-2036, eng] 44-2006

- Research on ice problems related to the operation of hydro power in Sweden. Billfalk, L., [1989, p.26-35, eng] 44-2020

- Inner structures and surface morphology of ice jams. Grzes, M., [1989, p.66-75, eng] 44-2024

- Some problems of the ice cover formation in the Wloclawek reservoir. Grzes, M., [1989, p.76-92, eng] 44-2025

- Freezeup dynamics of a frazil ice screen. Axelsson, K.D., [1990, 8p., eng] 44-2762

- In-situ sampling and characterization of frazil ice deposits. Lawson, D.E., et al, [1990, p.193-205, eng] 44-3294

- Development of an underwater frazil-ice detector. Daly, S.F., et al, [1990, p.77-82, eng] 44-3541

- Salmon River ice jam control studies: interim report. Axelsson, K.D., et al, [1990, 8p., eng] 44-3754

- Comparison of the compressive strength of antarctic frazil ice and laboratory-grown columnar ice. Richter-Menge, J.A., et al, [1990, p.79-84, eng] 44-3823

- Microorganisms concentrated by frazil ice. Garrison, D.L., et al, [1990, p.92-96, eng] 44-3825

- Suspended-matter scavenging by rising frazil ice. Reimnitz, E., et al, [1990, p.97-100, eng] 44-3826

- Laboratory study of heat flux through coastal polynyas during frazil-ice production. Ushio, S., et al, [1990, p.298-300, eng] 44-4213

Freeze drying

- Sludge dewatering by natural freeze-thaw. Martel, C.J., [1990, p.116-122, eng] 44-3750

- Technology transfer. [1989, p.42, eng] 44-3789

- Parametric analysis of self-freezing in an initially wet porous medium. Fey, Y.C., et al, [1988, p.147-155, eng] 44-3930

Freeze thaw cycles

- Structure of poly(vinyl alcohol) hydrogel prepared by repeated freezing and melting. Nagura, M., et al, [1989, p.762-765, eng] 44-43

- Check your admixtures after winter storage. Suprenant, B.A., [1989, p.320-322, eng] 44-85

- Over-winter chemistry of subarctic fens, eastern Canada. Kingsbury, C.M., et al, [1989, p.97-108, eng] 44-115

- Chemical interaction in the system "water-ice-rock". Ivanov, A.V., [1989, p.75-80, rus] 44-339

- Mapping seasonal soil freezing and thawing within the USSR. Tumel, N.V., et al, [1989, p.30-37, rus] 44-619

- Mapping freeze/thaw boundaries with SMMR data. Zuerndorfer, B.W., et al, [1989, 28p., eng] 44-713

- Freeze-thaw test of rock samples from Dunhuang Cave. Fukuda, M., et al, [1988, p.223-230, jpn] 44-742

- Program of the symposium on ground freezing technology. 1988. Jessberger, H.L., [1989, p.407-411, eng] 44-916

- Frozen rock mass control of shafts. Pleśniak, I., et al, [1989, p.571-572, eng] 44-940

- Influence of freeze-thaw cycles on clay structures. Schabberle, R., et al. (1989, p.573-575, eng) 44-941
- Understanding ice and its behavior in marinas. Wortley, C.A., (1985, 2p., eng) 44-1065
- Testing methods on sea ice-concrete sliding abrasion. Itoh, Y., et al. (1988, p.89-96, eng) 44-1131
- Interconnection of wetting and drying with freeze-thaw: some new data. Hall, K., (1988, p.1-11, eng) 44-1222
- Substrate freeze-thaw in a drained Alberta ten. Swanson, L.E., et al. (1989, p.1024-1029, eng) 44-1266
- Optimize freeze-thaw design of ALRS. Berg, R.L., (1987, 56p., eng) 44-1271
- Optimization of properties of a rubber/epoxy coating for asphalt. Lhymn, C., (1989, p.1019-1022, eng) 44-1378
- Effect of a cut layer of frozen peat deposits on its freeze-thaw process. Zhuraviev, A.V., et al. (1989, p.23-26, rus) 44-1400
- Instrumentation and pavement design. White, T., (1989, p.2-8, eng) 44-1637
- Monitoring pavement performance in seasonal frost areas. Berg, R.L., (1989, p.10-19, eng) 44-1638
- Instrumentation needs—SHRP's view. Irwin, L.H., et al. (1989, p.20-22, eng) 44-1639
- Measurement of *in-situ* pore pressures. Sellers, J.B., (1989, p.40-44, eng) 44-1641
- Soil water content during freezing and thawing conditions. Nieber, J.L., et al. (1989, p.45-62, eng) 44-1642
- Temperature and thaw depth monitoring of pavement structures. Esch, D.C., (1989, p.78-86, eng) 44-1645
- Information management-state of the art—the SHRP LTPP experience. Clarke, D.B., et al. (1989, p.118-127, eng) 44-1649
- State-of-the-art stress, strain and deflection measurements. Ullidtz, P., et al. (1989, p.148-161, eng) 44-1653
- Alaska's experiences with non-destructive testing. Connor, B., (1989, p.226-233, eng) 44-1660
- Resilient modulus determination for frost conditions. Chamberlain, E.J., et al. (1989, p.320-333, eng) 44-1668
- Practical instructions for calculating stationary soil temperature fields. Feldman, G.M., et al. (1988, 51p., rus) 44-1938
- Moisture distribution in wastewater sludges. Tsang, K.W.R., (1989, 170p., eng) 44-2100
- Using differential methods in solving problems of freezing-thawing. Zviagin, V.V., et al. (1989, p.108-114, rus) 44-2160
- Cryogenic scanning electron microscopy in the Arctic and Antarctic. Lilly, M.R., et al. (1990, p.51-60, eng) 44-2206
- Undersaturation in thawed permafrost at the beginning of freezeback. Ayorinde, O.A., (1990, p.317-321, eng) 44-2241
- Snow cover, freezing and thawing of soil in pine forests. Korepanov, A.A., (1989, p.64-68, rus) 44-2352
- Salt redistribution and heave of saline soil during cooling. Chen, X.B., et al. (1989, p.231-238, chi) 44-2418
- Landforms due to glacial erosion in the Luojishan Mt. Liu, G.N., (1989, p.249-259, chi) 44-2420
- Surface treatments for concrete. Husbands, T.B., et al. (1989, p.282-291, eng) 44-2515
- Freeze thaw deterioration of reinforced concrete. Sakurai, H., et al. (1987, p.473-476, jpn) 44-2563
- Freezing of winter roads in swamps. Morozov, V.S., (1989, p.51-56, rus) 44-2616
- Proteins protect thylakoids against freeze-thaw damage *in vitro*. Hinch, D.K., et al. (1990, p.416-419, eng) 44-2749
- Proceedings, 1990, 318p., eng) 44-2958
- Frozen soil impacts on agricultural, range, and forest lands. Saxton, K.E., et al. (1990, p.1-3, eng) 44-2959
- Frozen soil, runoff and soil erosion research in northeastern Oregon. Zuzel, J.F., et al. (1990, p.4-10, eng) 44-2960
- Cryic thermal regime of soils. Smith, C.A.S., (1990, p.11-20, eng) 44-2961
- Tillage and crop residue effects on soil frost depth. Rickerl, D.H., et al. (1990, p.31-35, eng) 44-2963
- Effect of freeze thaw activity on the soil physics. Benoit, G.R., et al. (1990, p.45-53, eng) 44-2965
- Effects of freezing on aggregate stability of soils. Lehrs, G.A., et al. (1990, p.61-69, eng) 44-2967
- Freeze thaw effects on soil strength. Kok, H., et al. (1990, p.70-76, eng) 44-2968
- Soil freezing and thawing simulation with the SHAW model. Fierlinger, G.N., et al. (1990, p.77-86, eng) 44-2969
- Simulating the freezing and thawing of arable land in Sweden. Lundin, L.C., (1990, p.87-98, eng) 44-2970
- Modeling the effects of soil frost and snowmelt on runoff and erosion. Young, R.A., et al. (1990, p.99-107, eng) 44-2971
- Conservation applications impacted by soil freeze thaw. Formanek, G.E., et al. (1990, p.108-112, eng) 44-2972
- Heat and water flux in a diurnally freezing and thawing soil. Pikul, J.L., Jr., et al. (1990, p.113-119, eng) 44-2973
- Effect of freeze-thaw cycles on soils. Chamberlain, E., et al. (1990, p.145-155, eng) 44-2977
- Runoff and soil erosion from thawing soil. McCool, D.K., (1990, p.171-176, eng) 44-2980
- Effect of freezing on mass and heat transfer in porous media. Eldin, N.N., et al. (1990, p.177-185, eng) 44-2981
- Modeling of solute rejection in freezing soils. Panday, S.M., et al. (1990, p.195-201, eng) 44-2983
- Fate and transport of contaminants in frozen soils. Ayorinde, O.A., et al. (1990, p.202-211, eng) 44-2984
- Research methods for soil conservation. Herndon, L.P., (1990, p.216-219, eng) 44-2986
- Frozen soil impacts: research needs. Papendick, R.I., et al. (1990, p.220-223, eng) 44-2987
- Effect of thaw depth on infiltration, runoff and sediment transport. Benoit, G.R., et al. (1990, p.224-230, eng) 44-2988
- Field and laboratory techniques for frozen and thawing soil. McCool, D.K., et al. (1990, p.271-278, eng) 44-2994
- Soil thaw as influenced by small grain residue color. Sharratt, B.S., et al. (1990, p.290-294, eng) 44-2997
- Cryogenic textures of the periglacial zone of Zailiyskiy Alatau. Ukhvalev, V.A., (1989, p.49-62, rus) 44-3234
- Influence of freezing-thawing on undrained shear characteristics of sand. Ogawa, S., et al. (1989, p.49-54, jpn) 44-3440
- Mathematical model of temperature changes in concrete pavements. Adkins, D.F., et al. (1990, p.349-358, eng) 44-3869
- Controlling the thermal regime of tunnels in severe climatic conditions. Gendler, S.G., et al. (1990, p.18-22, rus) 44-4483
- See also: Seasonal freeze thaw
- Freeze thaw tests
- PCA research on high-strength concrete. Fiorato, A.E., (1989, p.44-50, eng) 44-88
- Durability of concrete under simulated arctic conditions. Moukwa, M., et al. (1989, p.45-51, eng) 44-131
- Freeze-thaw testing of coarse aggregate in concrete. Vogler, R.H., et al. (1989, p.57-66, eng) 44-132
- Freeze-thaw deterioration of concrete pavements. Adkins, D.F., et al. (1989, p.97-104, eng) 44-685
- Freeze-thaw resistance of concrete incorporating fly ash. Malhotra, V.M., et al. (1989, p.37-46, eng) 44-693
- Evaluation of the 4-cycle magnesium sulfate soundness test. Final report. Papaleontiou, C.G., et al. (1987, 65p., eng) 44-720
- Determining moisture induced distress in asphalt concrete mixes. Heinicke, J.J., et al. (1987, 99p., eng) 44-784
- Freeze-thaw durability of high strength silica fume concrete. Kashi, M.G.R., (1989, 144p., eng) 44-964
- Durability of particulate grouts for isolation of low-level radioactive wastes. Okonkwo, I.O., (1989, 420p., eng) 44-965
- Freeze-thaw processes for conditioning wastewater and water treatment sludges. Trahern, P.G., (1989, 250p., eng) 44-972
- Gas and water permeability of concrete for reactor buildings. Mills, R.H., (1986, 77p., eng) 44-1059
- Effects of freezing on toxicity of contaminated sediments. Schuytema, G.S., et al. (1989, p.883-891, eng) 44-1205
- Freezing and thawing durability of high strength silica fume concrete. Kashi, M.G.R., et al. (1989, p.138-148, eng) 44-1411
- Interface movement during serial freezing and thawing of a binary solution. Diller, K.R., et al. (1988, p.243-251, eng) 44-1420
- Freeze-thaw tests of concrete in seawater. Moukwa, M., et al. (1989, p.360-366, eng) 44-1844
- Surface treatments for concrete. Husbands, T.B., et al. (1989, p.282-291, eng) 44-2515
- Influence of sign-variable temperature on rock strength. Rozenbaum, M.A., et al. (1989, p.22-26, eng) 44-2755
- Concrete durability after partial Portland cement replacement by fly ash. Langan, B.W., et al. (1990, p.19-27, eng) 44-2999
- Durability of concrete containing chloride-based accelerating admixtures. Rezanoff, T., et al. (1990, p.102-112, eng) 44-3002
- Sludge dewatering by natural freeze-thaw. Martel, C.J., (1990, p.116-122, eng) 44-3750
- Laboratory experiments on frost shattering of rocks. Matsuo, N., (1988, p.1-36, eng) 44-3932
- Freeze-up and break-up of ice cover on small arctic lakes. Woo, M.K., (1989, p.56-62, eng) 44-141
- Frazil and anchor ice and their role in ice cover development. Gosink, J.P., et al. (1989, 430p., eng) 44-718
- Ice thickness data, winter 1985-1986. (1989, 80p., eng) 44-745
- Ice problems and their solution on Czechoslovak rivers. Matoušek, V., (1989, p.168-178, eng) 44-2033
- Thermal effect of power plants on an aqueous medium. Braslavskii, A.P., et al. (1989, 251p., rus) 44-2802
- Forecasting ice cover load capacity, ice drift, and ice clearing in reservoirs. Lobovikova, Z.P., (1989, p.48-51, rus) 44-2929
- Characteristics of the freezeup and breakup of rivers in Kamchatka and Sakhalin. Lobovikova, Z.P., (1989, p.100-101, rus) 44-2931
- Freezing
- Hydrochemistry of subzero temperature zones in the Anadyr lignite deposit. Rusakov, V.G., (1989, p.149-159, rus) 44-161
- Hour-to-hour snowmelt rates and lysimeter outflow during an entire ablation period. Martinec, J., (1989, p.19-28, eng) 44-168
- Theory of freezing: the inhomogeneous Ornstein-Zernike equation. McCoy, J.D., et al. (1989, p.87-100, eng) 44-262
- Perfectly round and clear ice pellet drops. Lenggenhager, K., (1989, p.234-236, ger) 44-284
- Means and methods of preventing the freezing of loose materials. Terekhin, L.N., et al. (1989, p.28-31, rus) 44-384
- Mapping freeze/thaw boundaries with SMRM data. Zuerndorfer, B.W., et al. (1989, 28p., eng) 44-713
- Wastewater purification using freezing technology. Selcukoglu, Y., et al. (1987, 54p., eng) 44-904
- Case study on freezing pressure in a deep shaft. Chou, W.X., (1989, p.481-486, eng) 44-923
- Ice segregation on a microporous filter. Ozawa, H., et al. (1989, p.567-568, eng) 44-938
- Freezing characteristics of ethylene glycol solution. Fukusako, S., et al. (1989, p.303-309, eng) 44-1204
- Effects of freezing on toxicity of contaminated sediments. Schuytema, G.S., et al. (1989, p.883-891, eng) 44-1205
- Optimize freeze-thaw design of ALRS. Berg, R.L., (1987, 56p., eng) 44-1271
- Numerical method for multidimensional freezing problems. Saitoh, T., (1986, p.105-114, jpn) 44-1331
- Freezing of fuel in airplane fuel tanks. McConnell, P.M., et al. (1986, p.20-23, 2-6, eng) 44-1334
- Solidification interface shape in cooling fluid flow. Hasegawa, E., et al. (1987, p.32-48, eng) 44-1337
- Freezing around a vertical cylinder. Okada, M., et al. (1988, p.235-246, jpn) 44-1368
- Freezing process of water blocked in a capsule. Saito, A., et al. (1988, p.325-333, jpn) 44-1369
- Effects of free convection on steady state freezing in a porous medium-filled cavity. Oosthuizen, P.H., (1988, p.321-327, eng) 44-1415
- Solidification of saline water with convection and radiation at the boundary. Kehtarnavaz, H., et al. (1988, p.197-203, eng) 44-1416
- Analytical and numerical models on freezing and melting heat-transfer problems. Fukusako, S., et al. (1987, p.351-402, eng) 44-1476
- Statistical properties of freeze date variables. Waylen, P.R., et al. (1989, p.1314-1328, eng) 44-1526
- Fresh water from the sea, a new process. Maguire, J.B., (1987, p.155-162, eng) 44-1789
- Density-functional theory for the freezing of water. Ding, K., et al. (1987, p.1698-1701, eng) 44-2115
- Density-functional theory of freezing for quantum systems: the Wigner crystallization. Senatore, G., et al. (1990, p.303-306, eng) 44-2121
- Effect of reagents and container walls on the phase equilibrium of freezing solutions. Strigotskii, S.V., (1989, p.29-35, rus) 44-2148
- Freeze front effects on sediment distribution in seawater-slurry ice slurries. Clayton, J.R., Jr., et al. (1990, p.145-151, eng) 44-2399
- Freezing of concentrated aqueous polyvinyl alcohol solutions. Lozinskii, V.I., et al. (1989, p.685-690, rus) 44-2572
- Effect of organic ice-forming compounds on the freezing temperature of a water-oil emulsion. Arkharov, A.V., et al. (1989, p.1172-1174, rus) 44-2574
- Effects of sub-freezing temperatures on graphite/epoxy composite materials. Tsotsis, T.K., (1989, p.438-439, eng) 44-2591
- Possibility of freezing sea bottom deposits in the arctic seas. Shpolianskaia, N.A., (1989, p.72-78, rus) 44-2612
- Freezing of winter roads in swamps. Morozov, V.S., (1989, p.51-56, rus) 44-2616
- Ice initiation by collision-freezing in warm-based cumuli. Czys, R.R., (1989, p.1098-1104, eng) 44-2760
- High-pressure freezing for the preservation of biological structure: theory and practice. Dahl, R., et al. (1989, p.165-174, eng) 44-2789
- Use of ultrasound technique to monitor freezing and thawing of water in plants. Raschi, A., et al. (1989, p.411-418, eng) 44-2946
- Characteristic features of freezing of aqueous solutions. Lozinskii, V.I., et al. (1990, p.592-596, eng) 44-3596
- Solidification of a binary solution on a cold isothermal surface. Braga, S.L., et al. (1990, p.745-754, eng) 44-3600
- Effect of freezing on the composition of supercooled droplets—I. Iribarne, J.V., et al. (1990, p.383-387, eng) 44-3605
- Effect of freezing on the composition of supercooled droplets—II. retention of S(IV). Iribarne, J.V., et al. (1990, p.389-398, eng) 44-3606
- Brine movement during freezing of saline sand columns. Baker, G.C., et al. (1990, p.69-73, eng) 44-3645

Freezing (cont.)

- Factors affecting the adfreeze bond of piles in permafrost. Ladanyi, B., et al., 1990, p.327-334, eng. **44-3678**
- Sediment transport in freshwater- and seawater-slurry ice slurries. Clayton, J.R., Jr., et al., 1990, p.111-114, eng. **44-3831**
- Droplet nucleation rates between -30 and -40 C in laboratory simulations. DeMott, P.J., et al., 1990, p.1056-1064, eng. **44-3902**
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- See *also*: Artificial freezing; Concrete freezing; Ice formation; Pipeline freezing; Regulation; Sea water freezing; Seasonal freeze thaw; Soil freezing; Spray freezing; Vacuum freezing
- Freezing depth**
See *also*: Frost penetration
- Freezing indexes**
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- Freezing nuclei**
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- Freezing point depressants**
See *also*: Antifreezes
- Freezing points**
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- See *also*: Melting points
- Freezing rate**
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- See *also*: Glacier friction; Ice friction; Internal friction; Metal ice friction; Metal snow friction; Plastics ice friction; Plastics snow friction; Rubber ice friction; Rubber snow friction; Skid resistance; Wood ice friction; Wood snow friction
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See *also*: Hoarfrost
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- Ground freezing, 88: Proceedings. Vol.2. 1989, p.407-593, eng. **44-915**
- Program of the symposium on ground freezing technology. 1988. Jessberger, H.L., 1989, p.407-411, eng. **44-916**
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- Frost mounds**
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- See also: Hummocks; Pingo
- Frost penetration**
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- See also: Thaw depth
- Frost protection**
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- Cryogenic deformations of roadbeds and ways of preventing them. Dydyshko, P.I., et al., 1990, p.14-25, rus 44-4294
- Frost resistance**
- Antifreeze glycoproteins: physical, chemical, and functional properties. Feeney, R.E., et al., 1989, p.215-217, eng 44-33
- Frost resistance of concrete in arctic offshore structures. Leivo, M., 1989, 140p., fin 44-54
- Winter ecology. Schmid, W.D., 1986, p.335-340, eng 44-278
- Frost resistance of concrete used by enterprises of the Yakut Coal System. Smertin, O.S., et al., 1987, p.19-20, rus 44-326
- Effect of ice nucleation-active xylem-residing bacteria on frost tolerance. Gagné, S., et al., 1989, p.63-73, fre 44-397
- Fly ash concrete for highway use. Final report. Diamond, S., et al., 1988, 377p., eng 44-957
- Corrosion resistance of stainless steel in Frigid Zone (pt 1). Kitamura, Y., et al., 1988, p.79-83, jpn 44-1296
- Determination of frost penetration by soil resistivity measurements. Atkins, R.T., 1989, p.87-100, eng 44-1646
- Highly frost-resistant cement concretes. Shefkin, A.E., et al., 1989, 127p., rus 44-1726
- Intensive concrete technology. Solomatin, V.I., et al., 1989, 261p., rus 44-1754
- Laboratory equipment for studies of frost susceptibility of soils. Stenberg, L., 1989, 29p., swe 44-1822
- Increasing resistance of synthetic latices to freezing. Kiseleva, O.G., et al., 1989, p.1004-1007, rus 44-2571
- Proteins protect thylakoids against freeze-thaw damage in vitro. Hinch, D.K., et al., 1990, p.416-419, eng 44-2749
- Frost-resistance of concrete. Clifton, J.R., 1990, 22p., eng 44-2816
- Investigation into the frost susceptibility of sandy soils. Wolfe, S.A., 1986, 52p., eng 44-2949
- Use of soft grade asphalts in airfields and highway pavements in cold regions. Janoo, V.C., 1990, 47p., eng 44-4059
- Frost resistant concretes from cast mixes with polyfunctional modifiers. Rozental, N.K., et al., 1989, p.21-22, rus 44-4538
- Resistance and deformability of repeatedly frozen concrete. Kapkin, M.M., et al., 1989, p.21-22, rus 44-4540
- Frost shattering**
- Frost weathering and ice action in shore platform development. Dionne, J.C., et al., 1988, p.117-130, eng 44-217
- Frost shattering implications of rock temperatures in alpine environments. Coutard, J.P., et al., 1989, p.399-416, eng 44-2011
- Frost bursting: a violent expression of frost action in rock. Michaud, Y., et al., 1989, p.2075-2080, eng 44-2272
- Quaternary paleogeography and periglacial geomorphology of Mt. Huangshan. Zhou, B.G., et al., 1989, p.161-166, chj 44-2410
- Climates that cause frost shattering of stone objects. Miura, S., et al., 1988, p.205-216, eng 44-3219
- Rock breakdown by frost action. Matsuoka, N., 1990, p.253-270, eng 44-3298
- Rate of bedrock weathering by frost action. Matsuoka, N., 1990, p.73-90, eng 44-3871
- Laboratory experiments on frost shattering of rocks. Matsuoka, N., 1988, p.1-36, eng 44-3932
- Underground cables and frost shattering of ground. Senuk, D.P., et al., 1990, p.5-9, rus 44-4292
- Frost weathering**
- Frost weathering and ice action in shore platform development. Dionne, J.C., et al., 1988, p.117-130, eng 44-217

Frost weathering (cont.)

- Frost shattering implications of rock temperatures in alpine environments. Coutard, J.P., et al., 1989, p.399-416, eng 44-2011
- Cryo-facial features of rock streams in northern Transbaykal. Romanovskii, N.N., et al., 1989, p.75-98, rus 44-3237
- Rate of bed rock weathering by frost action. Matsuoka, N., 1990, p.73-90, eng 44-3871

Frozen cargo

- Induction assembly for unloading frozen coal from freight cars. Kovalchuk, V.M., et al., 1988, p.67-74, rus 44-1501
- Features of ballasting and straightening of railroad tracks. Lykov, V.G., et al., 1990, p.5-6, rus 44-4482

Frozen fines

- Measuring the thermophysical properties of frozen soils. Zaitsev, V.S., 1986, p.165-169, eng 44-1728
- Estimating the polarizability of frozen samples. Romanov, V.P., et al., 1989, p.794-796, rus 44-2573

Frozen ground

- Problems in engineering-geological research in the cryolithozone. Ershov, E.D., ed., 1989, 381p., rus 44-1302
- Frozen earth: fundamentals of geocryology. Williams, P.J., et al., 1989, 306p., eng 44-1355
- Oases of the North. Fominykh, L.A., et al., 1988, 170p., rus 44-1876
- Effects of frost heave on pollen accumulation rate. Wang, X.C., et al., 1989, p.223-229, chi 44-2417
- Phase composition of water in freezing and frozen soils. Kondakov, V.V., et al., 1989, p.21-27, rus 44-2517
- Estimating the polarizability of frozen samples. Romanov, V.P., et al., 1989, p.794-796, rus 44-2573
- Evaluating pre-winter soil preparation for reclamation construction. Kaluzhnyi, I.I., et al., 1987, p.24-27, rus 44-2615
- Hydraulic conductivity and unfrozen water content of frozen silt. Black, P.B., et al., 1990, p.323-329, eng 44-2646
- Artificial ground freezing and soil stabilization. Raad, L., 1988, 92p., eng 44-2744
- Frozen soil, runoff and soil erosion research in northeastern Oregon. Zuzel, J.F., et al., 1990, p.4-10, eng 44-2960
- Effect of freeze thaw activity on the soil physics. Benoit, G.R., et al., 1990, p.45-53, eng 44-2965
- Freeze thaw effects on soil strength. Kok, H., et al., 1990, p.70-76, eng 44-2968
- Runoff from frozen soils. Seyfried, M.S., et al., 1990, p.125-134, eng 44-2975
- Effect of frozen soil on erosion—a model approach. Botte, P.F., 1990, p.135-144, eng 44-2976
- Infiltration into a seasonally frozen clay soil. Thunholm, B., et al., 1990, p.156-160, eng 44-2978
- Snowmelt infiltration into completely frozen subsoiled soils. Gray, D.M., et al., 1990, p.161-170, eng 44-2979
- Runoff and soil erosion from thawing soil. McCool, D.K., 1990, p.171-176, eng 44-2980
- Fate and transport of contaminants in frozen soils. Ayorinde, O.A., et al., 1990, p.202-211, eng 44-2984
- Frozen soil impacts: research needs. Papendick, R.I., et al., 1990, p.220-223, eng 44-2987
- Effect of thaw depth on infiltration, runoff and sediment transport. Benoit, G.R., et al., 1990, p.224-230, eng 44-2988
- Effects of tillage and residue on frozen soils. Bidlake, W.R., et al., 1990, p.231-238, eng 44-2989
- Impact of frozen soil on prairie hydrology. Granger, R.J., et al., 1990, p.247-256, eng 44-2991
- Comparison of runoff occurring on frozen and unfrozen soils. Molnau, M., et al., 1990, p.279-285, eng 44-2995
- Frost data in the Pacific Northwest. Molnau, M., et al., 1990, p.286-289, eng 44-2996
- Unfrozen water contents of undisturbed and remolded Alaskan silt. Tice, A.R., et al., 1989, p.103-111, eng 44-3094
- Pereletois in the low, isolated hills of Kazakhstan. Gorbunov, A.P., 1989, p.40-48, rus 44-3233
- Seminar on engineering geology and hydrogeology, 1989. 1989, 272p. (Pertinent p.124-129, 191-206, 237-239), rus 44-3489
- Congress of soil scientists, 8th, Novosibirsk, 1989. 1989, 290p., rus 44-3552
- Theoretical modeling of massive ice beds. Konrad, J.M., 1990, p.31-35, eng 44-3640
- Frozen ground survey for airstrip construction at Nunavik, Quebec. Seguin, M.K., et al., 1990, p.239-245, fre 44-3668
- Compressive strength and deformation in fine-grained frozen soils. Yoshi, R.C., et al., 1990, p.317-325, eng 44-3677
- Permeability of frozen soils under trees. Rybakova, N.A., 1990, p.106-112, eng 44-4057
- See also: Geocryology; Soil freezing
- Frozen ground chemistry**
- Nitrogen fertilizer in soil during winter. Selles, F., et al., 1989, p.551-565, eng 44-667
- Physico-chemical mechanics of frozen rocks. Sav'el'ev, B.A., 1989, 214p., rus 44-760

- Biological activity of frozen meadow-chernozem soils in the Amga River valley. Volotovskaya, T.N., et al., 1988, p.37-40, rus 44-1962
- Migration of salts in freezing soils. Romanov, V.P., et al., 1989, p.44-51, eng 44-2592
- Size distribution of gold grains in cryogenic zone. Taisaev, T.T., et al., 1990, p.699-703, rus 44-3561
- Frozen ground compression**
- Case study on freezing pressure in a deep shaft. Chou, W.X., 1989, p.481-486, eng 44-923
- Thermocompressive method of testing frozen soils by thawing. Orzhikhovskii, I.U.R., 1989, p.46-52, rus 44-2151
- Experimental study of uniaxial compressive strength of frozen sand. Takashi, T., et al., 1980, p.79-88, jpn 44-3086
- Compressive strength of frozen clay. Takashi, T., et al., 1981, p.83-93, jpn 44-3088
- Effect of internal confinement on compression strength of frozen sand. Ladanyi, B., et al., 1990, p.8-18, eng 44-3287
- Change in explosive waves with freezing of the ground. Liakhov, G.M., et al., 1989, p.352-357, eng 44-3370
- Frozen ground expansion**
- Cylindrical Stefan problem sensitivity to thermal and geometrical parameters. Cames-Pintaux, A.M., et al., 1989, p.547-549, eng 44-931
- Interaction of surface foundations with heaving soil during deep freeze. Babello, V.A., et al., 1989, p.117-120, rus 44-1503
- Frozen ground mechanics**
- Characteristics of the interaction of pipelines with frozen ground. Baglaj, R.D., et al., 1989, p.37-39, rus 44-95
- Compaction characteristics in thawing sandy soil under dynamic loads. Inozemtsev, V.K., 1985, p.114-119, rus 44-208
- Geotextiles and a new way to use them. Henry, K., 1988, p.214-222, eng 44-420
- Artificial freezing for shaft sinking. Ma, Y.M., et al., 1989, p.20-33, chi 44-647
- Physico-chemical mechanics of frozen rocks. Sav'el'ev, B.A., 1989, 214p., rus 44-760
- Ground freezing, 88: Proceedings. Vol.2. 1989, p.407-593, eng 44-915
- General report on mechanical properties of frozen soil. Andersland, O.B., 1989, p.433-441, eng 44-919
- State of the art: mechanical properties of frozen soil. Sadovskii, A.V., et al., 1989, p.443-463, eng 44-920
- Experimental studies on reducing methods of uplift force to a steel pipe. Nakagawa, S., et al., 1989, p.565-566, eng 44-937
- Pressuremeter test of frozen ground and ice mechanics. Lemoigne, Y., et al., 1988, p.75-87, eng 44-1130
- Volume changes accompanying creep of frozen soil. Knutsson, S., 1988, p.477-487, eng 44-1165
- Infiltration into a frozen heavy clay soil. Thunholm, B., et al., 1989, p.153-166, eng 44-1322
- Mechanical effect of an explosion in soil. Luchko, I.A., ed., 1989, 231p., rus 44-1399
- Characteristics of soils in the Amga River valley. Savvinov, D.D., et al., 1980, 99p., rus 44-1492
- Thermal conductivity of permafrost soils. Gavril'ev, R.I., 1989, p.701-706, eng 44-1833
- Replenishment of soil moisture reserves of agricultural fields. Shutov, V.A., et al., 1989, p.64-71, eng 44-1837
- Engineering-geocryological safeguarding of the building of structures. Mel'nikov, V.P., ed., 1989, 135p., rus 44-2144
- Deformation-strength properties of frozen ground. Lelkam, A.B., et al., 1989, p.19-29, rus 44-2147
- Dynamics of tangential forces of frost heave in the Chita region. Elgin, B.B., 1985, p.50-54, rus 44-2372
- Underground passages with nonuniform frozen soil base swelling. Abzhalmov, R.Sh., 1989, p.65-66, eng 44-2576
- Frozen peat soil drainage in the Baikal-Amur Main line zone. Alekseev, I.S., 1987, p.8-13, rus 44-2614
- Streamline solution for rigid laterally loaded piles in permafrost. Foriero, A., et al., 1989, p.568-574, eng 44-2643
- Rheology in soil engineering. Part 5. Rheology of frozen ground. Kinoshita, S., et al., 1981, p.83-90, jpn 44-3087
- Mechanical properties of artificially frozen soils. Akagawa, S., et al., 1982, p.7-17, eng 44-3090
- Relation between frost heave and specimen length. Akagawa, S., 1983, 6p., eng 44-3091
- Ice segregation and water migration in frozen ground. Takashi, T., et al., 1983, p.735-738, jpn 44-3093
- Mechanical properties of frozen cohesive soils. Kataoka, T., et al., 1987, 28p., jpn 44-3190
- Frost heave and soil constants. Kataoka, T., et al., 1987, 30p., jpn 44-3191
- Nonlinear problems in the study of water movement in frozen soils. Nakano, Y., 1989, p.383-393, eng 44-3766
- Elastic visco-plastic modelling of a frozen sand using equivalent time. Yin, J.H., et al., 1990, p.133-139, eng 44-3799

- Cryostatic desiccation processes associated with sand intraclasts. Menzies, J., 1990, p.684-693, eng 44-4413
- Landslide development in permafrost soils in Western Siberian tundra. Bolikhovskii, V.F., et al., 1990, p.65-70, rus 44-4534
- Frozen ground physics**
- Heat and moisture transport in thawing of frozen soil. Anitskil, P.A., 1987, p.136-144, eng 44-302
- General report on frost action in soil. Slunga, E., et al., 1989, p.415-417, eng 44-917
- Stress-strain behavior and heat-mass transfer of frozen soil. Razbegin, V.N., 1989, p.419-424, eng 44-918
- Ice sandwich experiments and the thermodynamic-rheological model of frost heave. Williams, P.J., et al., 1989, p.579-580, eng 44-943
- Volume changes accompanying creep of frozen soil. Knutsson, S., 1988, p.477-487, eng 44-1165
- Cryogenic migration of ions in ice-saturated dispersed soils. Lebedenko, I.U.P., 1989, p.21-30, rus 44-1253
- Heating adfreezing excavated material through a metallic plate. Dugartysrenov, A.V., et al., 1988, p.31-36, rus 44-1380
- Drying cut peat in a frozen deposit. Gamaunov, N.I., et al., 1989, p.19-24, rus 44-1401
- Characteristics of soils in the Amga River valley. Savvinov, D.D., et al., 1980, 99p., rus 44-1492
- Distribution of the phase front in the freezing of finely-dispersed soils. Bronfenbrener, L.E., et al., 1989, p.575-579, eng 44-1717
- Hydrothermal problems of frozen soils. Savvinov, D.D., ed., 1988, 126p., rus 44-1958
- Effect of fires on some hydrophysical properties of soils. Tarabukina, V.G., et al., 1988, p.86-91, rus 44-1966
- Heating frozen soil. Filippov, P.I., 1988, p.121-126, rus 44-1970
- Modeling the upper profile under permafrost conditions. Tabulevich, V.N., ed., 1989, 128p., rus 44-2074
- Determining the phase composition of moisture in frozen disperse systems. Podenko, L.S., et al., 1989, p.52-56, rus 44-2152
- Formation of frozen-ground conditions in the foundations of buildings. Gurinov, V.N., et al., 1989, p.72-79, rus 44-2155
- Investigation of thermal exchange in frozen ground and ice masses. Danielian, I.U.S., et al., 1989, p.101-108, rus 44-2159
- Distintegration of frozen and thawed sandy and clayey soils. Shirman, V.G., et al., 1989, p.962-964, rus 44-2248
- Methods of studying seasonally freezing and frozen ground. Orlov, V.O., ed., 1985, 76p., rus 44-2362
- Changes in structure and properties of frozen soils. Zykov, I.U.D., et al., 1985, p.13-20, rus 44-2365
- Proceedings. 1990, 318p., eng 44-2958
- Frozen soil impacts on agricultural, range, and forest lands. Saxton, K.E., et al., 1990, p.1-3, eng 44-2959
- Measurements of dielectric properties of frozen soils. Araki, T., et al., 1989, p.27-40, jpn 44-3124
- Geocryological surveys in the mountains of the USSR. Severskii, I.V., ed., 1989, 168p., rus 44-3228
- Cryogenic textures of the periglacial zone of Zailiyskiy Alatau. Ukhnaev, V.A., 1989, p.49-62, rus 44-3234
- Congress of soil scientists, 8th, Novosibirsk, 1989. 1989, 299p. (Pertinent p.119-123), rus 44-3551
- Frozen ground settling**
- Geological and geotechnical conditions of the Beaufort Sea coastal zone, arctic Canada. Kurfurst, P.J., et al., 1989, p.121-129, eng 44-46
- Behaviour of two kinds of ground freezing: laboratory tests and case histories. Thimus, J.F., et al., 1989, p.577-578, eng 44-942
- Compressibility of sand-ice system. Youssef, H., 1988, p.497-506, eng 44-1167
- Causes of deformation of buildings on permafrost in railroad district of Vorkuta. Belotserkovskaya, G.V., et al., 1989, p.102-106, eng 44-3003
- Frozen ground strength**
- Strength of frozen sand containing tetrahydrofuran hydrate. Parameswaran, V.R., et al., 1989, p.479-483, eng 44-123
- Strength characteristics of frozen Fox gravel. Skudrzyk, F.J., 1989, p.97-106, eng 44-216
- Temporary support of excavation by artificially frozen ground. Lacy, H.S., et al., 1988, p.46-56, eng 44-911
- Behavior of frozen and unfrozen sands in triaxial testing. Youssef, H., et al., 1988, p.57-64, eng 44-912
- General report on mechanical properties of frozen soil. Andersland, O.B., 1989, p.433-441, eng 44-919
- State of the art: mechanical properties of frozen soil. Sadovskii, A.V., et al., 1989, p.443-463, eng 44-920
- Frozen soil deformation and failure under different loading. Vialov, S.S., et al., 1989, p.465-471, eng 44-921
- Radial adfreezing of permafrost in the basement of buildings. Maksimov, G.N., et al., 1989, p.491-496, eng 44-925
- Time dependent response of frozen soils subject to triaxial stress. Hampton, C.N., et al., 1989, 5 refs., eng 44-934

- Frozen soil impact tests of strategic bombs. Dockery, H.A., et al, (1987, 25p., eng) **44-960**
- Volume changes accompanying creep of frozen soil. Knutson, S., (1988, p.477-487, eng) **44-1165**
- Shear strength of frozen saline soils. Brovka, G.P., et al, (1989, p.30-33, rus) **44-1382**
- Particle impact of frozen surfaces with subsequent particle wind-entrainment. Neuman, C.M., (1989, p.1007-1015, eng) **44-2093**
- Engineering-geocryological safeguarding of the building of structures. Mel'nikov, V.P., ed, (1989, 135p., rus) **44-2144**
- Deformation-strength properties of frozen ground. Lefkam, A.B., et al, (1989, p.19-29, rus) **44-2147**
- Thermocompressive method of testing frozen soils by thawing. Orzhikhovskii, I.U.R., (1989, p.46-52, rus) **44-2151**
- Backfill property effects on the capacity of adfreeze pipe piles. Sego, D.C., et al, (1989, p.718-725, eng) **44-2645**
- Experimental study of uniaxial compressive strength of frozen sand. Takashi, T., et al, (1980, p.79-88, jpn) **44-3086**
- Rheology in soil engineering. Part 5. Rheology of frozen ground. Kinoshita, S., et al, (1981, p.83-90, jpn) **44-3087**
- Compressive strength of frozen clay. Takashi, T., et al, (1981, p.83-93, jpn) **44-3088**
- Effect of salinity on strength and creep of frozen ground. Ogata, N., et al, (1983, 27p., jpn) **44-3092**
- Strength of soils and rocks at low temperatures. Sellmann, P.V., (1989, p.189-190, eng) **44-3101**
- Suspended percussion devices for breaking frozen ground. Ivanov, R.A., et al, (1988, 142p., rus) **44-3121**
- Freeze thaw effect on soil strength. Ogata, N., et al, (1986, 29p., jpn) **44-3187**
- Mechanical properties of frozen cohesive soils. Kataoka, T., et al, (1987, 28p., jpn) **44-3190**
- Frost heave and soil constants. Kataoka, T., et al, (1987, 30p., jpn) **44-3191**
- External pressure on cylinder of frozen ground. Izuta, H., et al, (1989, 2p., jpn) **44-3221**
- Experimental study on frost heave under tri-axial stress. Yamamoto, H., et al, (1989, 2p., jpn) **44-3223**
- Correlation of results of plate and compression tests on frozen soils under thawing. Sorokin, V.A., et al, (1990, p.160-161, eng) **44-3257**
- Structural strength of frozen soils during thawing. Vodolazkin, V.M., et al, (1990, p.207-209, eng) **44-3417**
- Acoustic properties of icy soils and ice. Zykov, I.U.D., et al, (1989, 133p., rus) **44-3550**
- Bearing strength of piles in frozen ground. Asmolov, V.A., (1990, p.10-14, rus) **44-4293**
- Frozen ground temperature**
- Analysis and estimation of runoff in the Binggou Basin of the Qilian Mountains. Yang, Z.N., et al, (1989, p.39-44, eng) **44-170**
- Guide to forecasting the thermal regime of soils in Yakutia. Fel'dman, G.M., et al, (1988, 240p., rus) **44-193**
- Temperature regime of frozen soils on burns in northern Yakutia. Stepanov, G.M., (1988, p.76-82, eng) **44-222**
- Plasma method of thawing frozen ground. Zadvornev, G.A., et al, (1987, p.112-115, rus) **44-319**
- Possibilities for hydraulic transport of high-viscosity oil in the North. Kagan, I.A.M., et al, (1989, p.36-37, rus) **44-325**
- Statistical characteristics of frozen soil in Jilin Province. Ni, C.Y., et al, (1989, p.34-43, chi) **44-648**
- Temperature monitoring of frozen ground during construction of Gascoigne Wood drifts, Selby Mine. Willis, A.J., et al, (1989, p.533-540, eng) **44-930**
- Study of temperature fields in thawing soils. Bronfenbrener, L.E., et al, (1989, p.59-65, rus) **44-1256**
- Heating adfreezing excavated material through a metallic plate. Dugartysrenov, A.V., et al, (1988, p.31-36, rus) **44-1380**
- Interrelations of forest and swamp in a taiga zone. Glebov, F.Z., (1988, 182p., rus) **44-1719**
- Measuring the thermophysical properties of frozen soils. Zaitsev, V.S., (1986, p.165-169, eng) **44-1728**
- Thermal regime of the soils near the northern Yenisei. Skriabin, P.N., et al, (1989, 175p., rus) **44-1854**
- Practical instructions for calculating stationary soil temperature fields. Fel'dman, G.M., et al, (1988, 51p., rus) **44-1938**
- Hydrothermal problems of frozen soils. Savvinov, D.D., ed, (1988, 126p., rus) **44-1958**
- Hydrothermal regime of frozen flood-plain soils. Savvinov, D.D., (1988, p.4-18, rus) **44-1959**
- Hydrothermal regime of frozen pale yellow soils during irrigation. Sleptsov, V.I., et al, (1988, p.18-30, rus) **44-1960**
- Moisture and temperature dynamics of frozen soils. Savvinov, G.N., (1988, p.49-59, rus) **44-1964**
- Potential effectiveness of thermal melioration of frozen soil. Romanov, P.G., et al, (1988, p.104-113, rus) **44-1968**
- Engineering-geocryological safeguarding of the building of structures. Mel'nikov, V.P., ed, (1989, 135p., rus) **44-2144**
- Formation of frozen-ground conditions in the foundations of buildings. Gurinov, V.N., et al, (1989, p.72-79, rus) **44-2155**
- Methods of studying seasonally freezing and frozen ground. Orlov, V.O., ed, (1985, 76p., rus) **44-2362**
- Changes in structure and properties of frozen soils. Zykov, I.U.D., et al, (1985, p.13-20, rus) **44-2365**
- Frontal freezing of ground with frost heave. Sarkisian, R.M., (1985, p.26-31, rus) **44-2367**
- Determining the average annual temperature of permafrost. Khrustalev, L.N., et al, (1989, p.102-107, rus) **44-2519**
- Permafrost temperatures in the Arctic National Wildlife Refuge. Osterkamp, T.E., (1988, p.191-193, eng) **44-3509**
- Frozen ground thermodynamics**
- Guide to forecasting the thermal regime of soils in Yakutia. Fel'dman, G.M., et al, (1988, 240p., rus) **44-193**
- Plasma thawing of frozen soils. Zadvornev, G.A., et al, (1987, p.132-135, eng) **44-221**
- Temperature regime of frozen soils on burns in northern Yakutia. Stepanov, G.M., (1988, p.76-82, eng) **44-222**
- Heat-moisture transfer in thawing frozen ground. Ianitskii, P.A., (1987, p.116-122, rus) **44-320**
- Interaction of insulated pipe with frozen soil. Ianitskii, P.A., (1989, p.74-80, eng) **44-1088**
- Substrate freeze-thaw in a drained Alberta fen. Swanson, L.E., et al, (1989, p.1024-1029, eng) **44-1268**
- Investigation of thermal exchange in frozen ground and ice masses. Danielian, I.U.S., et al, (1989, p.101-108, rus) **44-2159**
- Advisability of using drying drums for reclamation of frozen soils. D'akovov, P.I.U., et al, (1989, p.53-55, rus) **44-2647**
- Thermal conductivity of frozen soils. Yoneyama, K., et al, (1981, p.109-112, jpn) **44-3089**
- Congress of soil scientists, 8th, Novosibirsk, 1989. (1989, 299p. (Pertinent p.119-123), rus) **44-3551**
- Frozen lakes**
- Oxygen demand in ice covered lakes as it pertains to winter aeration. Ellis, C.R., et al, (1989, p.1169-1176, eng) **44-3113**
- Frost heave in lake bottom sediments, Mackenzie Delta. Burn, C.R., (1990, p.103-109, eng) **44-3650**
- Investigation of the LIZ-3 Dew Line Station water supply lake. Kovacs, A., (1990, 10p., eng) **44-3752**
- See *also*: Icebound lakes
- Frozen liquids**
- Thermal conductivity of a dendritic ice layer. Fukusako, S., et al, (1989, p.269-278, eng) **44-263**
- Conformational transitions of long chain molecules in frozen solutions. Hirschmann, R., et al, (1989, p.7296-7299, eng) **44-1861**
- Association between ice nuclei and fracture interfaces in sucrose-water glasses. Williams, R.J., et al, (1989, p.103-107, eng) **44-2945**
- Model for electrochemical reactions in frozen solutions. Gosser, D.K., Jr., et al, (1990, p.399-402, eng) **44-2947**
- Proton mobility in liquid and frozen HClO₄·5H₂O. NMR and conductivity measurements. Huang, T.H., et al, (1988, p.6874-6876, eng) **44-3618**
- Frozen rivers**
- See *also*: Icebound rivers
- Frozen rock strength**
- Interconnection of wetting and drying with freeze-thaw: some new data. Hall, K., (1988, p.1-11, eng) **44-1222**
- Chemogenic heaving of frozen rocks. Lebedenko, I.U.P., (1989, p.60-70, rus) **44-1341**
- Strength of soils and rocks at low temperatures. Sellmann, P.V., (1989, p.189-190, eng) **44-3101**
- Climates that cause frost shattering of stone objects. Miura, S., et al, (1988, p.205-216, eng) **44-3219**
- Rock breakdown by frost action. Matsuoka, N., (1990, p.253-270, eng) **44-3298**
- Rate of bedrock weathering by frost action. Matsuoka, N., (1990, p.73-90, eng) **44-3871**
- Frozen rock temperature**
- Annual temperature variation and the level of man-made cryopegs. Andreev, S.V., (1989, p.106-112, rus) **44-1156**
- Guide to forecasting the thermal regime of soils in Yakutia. Fel'dman, G.M., et al, (1988, 240p., rus) **44-193**
- Permafrost as an oil and gas bearing measure. Timonina, N.N., (1985, p.119-124, rus) **44-469**
- Physico-chemical mechanics of frozen rocks. Sav'el'ev, B.A., (1989, 214p., rus) **44-760**
- Role of heat exchange in the thermal regime of perennally frozen rocks. Brykain, V.N., (1989, p.31-35, rus) **44-1254**
- Mine shaft-borehole thermal prospecting in perennally frozen rocks. Maslennikov, A.L., (1989, p.110-114, rus) **44-1727**
- Geothermal investigations of the cryolithozone of Western Siberia. Deviatkin, V.N., (1989, p.5-11, rus) **44-2145**
- Frozen rocks**
- Role of perennally frozen rock in the formation of ground water. Kuskovskii, V.S., et al, (1989, p.24-27, rus) **44-145**
- Cryogenic transformation of ground water and surface rocks in coal deposits. Fotiev, S.M., et al, (1989, p.48-56, rus) **44-148**
- Microbiological characteristics in cryolithozone sedimentary rocks. Gilichinskii, D.A., et al, (1989, p.103-115, rus) **44-162**
- Predicting changes in thickness of seasonal freezing of rocks. Seregina, N.V., et al, (1988, p.70-75, eng) **44-470**
- Freeze-thaw test of rock samples from Dunhuang Cave. Fukuda, M., et al, (1988, p.223-230, jpn) **44-742**
- Physico-chemical mechanics of frozen rocks. Sav'el'ev, B.A., (1989, 214p., rus) **44-760**
- Self-similar solution of the thawing soil problem. Maksimov, A.M., et al, (1989, p.914-919, eng) **44-1518**
- Structural inhomogeneities of the Martian cryolithosphere. Kuz'min, R.O., et al, (1989, p.121-133, eng) **44-1679**
- Motive forces of moisture migration in cryogenic deformation. Lebedenko, I.U.P., (1988, p.1-10, eng) **44-1842**
- Frost shattering implications of rock temperatures in alpine environments. Coutard, J.P., et al, (1989, p.399-416, eng) **44-2011**
- Physicochemical processes in the cryolithozone. Mel'nikov, P.I., et al, (1989, p.3-8, rus) **44-2052**
- Physical properties of carbonate rocks. Bondarenko, A.T., et al, (1989, p.121-128, rus) **44-2053**
- Engineering-geocryological safeguarding of the building of structures. Mel'nikov, V.P., ed, (1989, 135p., rus) **44-2144**
- Studying the moisture in frozen rocks using sound methods. Tsubul'skii, V.R., et al, (1989, p.56-63, rus) **44-2153**
- Inter-relationship of frozen rocks with oil field equipment. Bel'mas, O.M., et al, (1989, p.79-88, rus) **44-2156**
- Estimations of stresses on a shaft during the thawing of rocks. Kul'tikov, A.M., (1989, p.88-96, rus) **44-2157**
- Rocks and soil of the martian surface. Sidorov, I.U.I., et al, (1989, 222p., rus) **44-2797**
- Laboratory experiments on frost shattering of rocks. Matsuoka, N., (1988, p.1-36, eng) **44-3932**
- Seasonal cryogenic rock in the Siberian Uvaly Marshes. Skorbin, N.A., (1990, p.45-50, rus) **44-4299**
- Frozen soil**
- See *also*: Frozen ground
- Fuel additives**
- Influence of heavy fractions on low-temperature properties of diesel fuels. Tumanian, B.P., et al, (1989, p.39-41, eng) **44-1680**
- Diesel fuel: cold-weather operation. (1987, 5p., eng) **44-1857**
- Surface activity of anti-icing additives. Urianskaia, N.I., et al, (1989, p.162-167, eng) **44-1886**
- Low-viscosity marine fuel with improved low-temperature properties. Kondrasheva, N.K., (1990, p.422-424, eng) **44-3970**
- Enhanced diesel fuel low temperature operability—additive developments. Brown, G.I., et al, (1990, p.196-204, eng) **44-3986**
- Use of dimethyl ether as a starting aid for methanol-fueled SI engines at low temperatures. Kozole, K.H., et al, (1988, p.3.1079-3.1097, eng) **44-4247**
- Enhancing low-temperature phase stability of a 50/50 methanol/hydrocarbon blend. Lee, H.K., et al, (1988, p.3.1127-3.1134, eng) **44-4248**
- Fuels**
- Fuel holdup and component diffusivity in a cooled cylindrical tank. Leo, A., et al, (1989, p.465-469, eng) **44-39**
- Keep fuel flowing. (1988, p.74-75, eng) **44-755**
- Low temperature starts of fuel-injected alcohol engines. Siewert, R.M., et al, (1987, p.7.357-7.372, eng) **44-1**
- Methanol dissociator for engine cold start assist. Piotrowski, G.K., (1987, 17p., eng) **44-1283**
- Freezing of fuel in airplane fuel tanks. McConnell, P.M., et al, (1986, p.20-23, 2-6, eng) **44-1334**
- Effect of volatility changes on vehicle cold-start driveability. Abramo, L., et al, (1989, 20p., eng) **44-2858**
- Production of low pour-point diesel fuels and high-purity paraffins from gas condensate. Babaev, I.D., et al, (1990, p.231-232, eng) **44-3204**
- Top it off and hold the ice. Haines, T.B., (1990, p.43-44, eng) **44-3584**
- Low-viscosity marine fuel with improved low-temperature properties. Kondrasheva, N.K., (1990, p.422-424, eng) **44-3970**
- Enhanced diesel fuel low temperature operability—additive developments. Brown, G.I., et al, (1990, p.196-204, eng) **44-3986**
- Use of dimethyl ether as a starting aid for methanol-fueled SI engines at low temperatures. Kozole, K.H., et al, (1988, p.3.1079-3.1097, eng) **44-4247**

Fuels (cont.)

- Enhancing low-temperature phase stability of a 50/50 methanol/hydrocarbon blend. Lee, H.K., et al, 1988, p.3.1127-3.1134, eng 44-4248

Fungi

- Microflora of tundra soils. Parinkina, O.M., 1989, 159p., rus 44-52
- Characteristics of Wilkes Land soils. Heatwole, H., et al, 1989, p.225-234, eng 44-63

Gamma irradiation

- Effect of forest biomass on airborne measurement of snow water equivalent. Carroll, S.S., et al, 1989, p.313-319, eng 44-496
- Analysis of snow water equivalent data used in flood forecasting. Carroll, T.R., 1989, p.138-140, eng 44-516

- Paramagnetic species produced by gamma irradiation of sulfuric acid ices. Ohno, K., et al, 1989, p.1657-1660, eng 44-1677

- Neutrino astronomy. Halzen, F., et al, 1989, p.39-51, eng 44-2071

- ICEMAND: microwave detection of ultra-high energy neutrinos in ice. Ralston, J.P., et al, 1989, p.52-60, eng 44-2072

- New ideas in South Pole experiments. Seckel, D., 1989, p.61-63, eng 44-2073

- Computerized methods to analyze variations in airborne snow water equivalence estimates. Carroll, S.S., et al, 1990, p.35-46, eng 44-3983

- Comparison between remotely-sensed and surface-measured snow water equivalent data. Schmidlin, T.W., 1989, p.208-212, eng 44-4014

- National Weather Service gamma snow system physics and calibration. Fritzsche, A.E., 1982, 37p., eng 44-4260

Gas inclusions

- Gas-kinetic processes during ice formation. Amel'kin, S.V., et al, 1989, p.63-71, rus 44-2154
- Utilization of clathrate hydrates for storage of gas. Hondoh, T., et al, 1988, p.562-566, jpn 44-2728

Gas liquefaction

- See *also*: Liquefied gases

Gas pipelines

- Ground freezing around chilled gas pipelines. Greene, D.P., et al, 1989, p.555-557, eng 44-933
- Methods of eliminating hydrated locks in gas pipelines. Malysheva, G.N., et al, 1989, p.128-132, rus 44-2163

- Performance of the Trans-Alaska Pipeline System fuel gas supply pipeline. Alto, J.V., et al, 1990, p.389-396, eng 44-3686

- Effect of gas pipelines on permafrost. Belousov, V.F., et al, 1990, p.38-42, rus 44-4297

- Effect of defect size on the strength of pipelines used in cold regions. Larionov, V.P., et al, 1990, p.127-130, rus 44-4365

- Efficient use of gas production without environmental impact. Zemchikhin, V.E., et al, 1989, p.101-107, rus 44-4519

- Ecological effects of the Yamburg-Tsentr pipelines. Satarov, V.N., 1989, p.123-129, rus 44-4523

Gas production

- Optimal regimes in operating natural gas production installations. Korotaev, I.U.P., et al, 1989, 263p., rus 44-2102

- Arctic and Antarctic development. Byford, A.N., 1990, p.39-49, eng 44-2205

- Environmental protection of West Siberia during its industrialization. Zakharov, I.U.F., et al, 1989, p.17-26, rus 44-4508

- Gas industry and ecological safety in permafrost. Antonov-Druzhinin, V.P., et al, 1989, p.39-49, rus 44-4510

- Geocryological aspects of geology of gas deposits in Central Yakutia. Gravis, G.F., et al, 1989, p.57-65, rus 44-4512

- Efficient use of gas condensers and crude oil in the Yakutsk ASSR. L'vova, Z.M., et al, 1989, p.72-78, rus 44-4514

- Effect of construction of foundations on permafrost thermal regime. Gorbacheva, V.M., et al, 1989, p.92-98, rus 44-4517

- Efficient use of gas production without environmental impact. Zemchikhin, V.E., et al, 1989, p.101-107, rus 44-4519

- Underground disposal of waste from gas-production facilities. Andrievskii, V.S., et al, 1989, p.143-151, rus 44-4527

- Burial of industrial wastes from gas production. Sevast'yanov, O.M., 1989, p.152-160, rus 44-4528

Gas wells

- Prediction of the effect of a flare on permafrost. Rubtsov, N.A., et al, 1986, p.33-37, eng 44-1729

Gases

- Study of planetary gases with applications to planetary interior models. Bell, P.M., et al, 1988, 10p., eng 44-721

- PAN over the Arctic: observations during AGASP-2 in April 1986. Bottenheim, J.W., et al, 1989, p.301-316, eng 44-2182

- Greenhouse warming: consequences for Arctic climate. Etkin, D., 1990, p.54-66, eng 44-3391

- Structural study of H₂O clusters. Torchet, G., et al, 1989, p.245-260, eng 44-3699

- Heterogeneous reactions on model polar stratospheric cloud surfaces. Quinlan, M.A., et al, 1990, p.3255-3260, eng 44-3945

- HC1/H₂O solid-phase vapor pressures and HC1 solubility in ice. Hanson, D.R., et al, 1990, p.4700-4705, eng 44-3946

- Atmospheric trace gases in the polar environment. Kelley, J.J., et al, 1990, p.212-224, eng 44-4091

- Role of methane clathrates in past and future climates. MacDonald, G.J., 1990, p.247-281, eng 44-4277

- See *also*: Carbon dioxide; Hydrogen; Liquefied gases; Natural gas; Oxygen

Geobotanical interpretation

- Using large-scale mapping to study arctic tundra vegetation. Kholod, S.S., 1989, p.61-71, rus 44-37

- Geobotanical regionalization of the non-chemozem zone of the European RSFSR. Aleksandrova, V.D., et al, 1989, 64p., rus 44-3577

Geochemical cycles

- Quaternary ice age cycles controlled by biogeochemical cycling in the ocean. Shaffer, G., 1990, p.127-143, eng 44-4415

Geochemistry

- Geochemistry of atmospheric precipitation and chemical runoff formation. Makarov, V.N., 1989, p.139-149, rus 44-160

- Snow accumulation determined by glaciochemistry. Karakoram, Pakistan. Wake, C.F., 1989, p.279-284, eng 44-590

- Landscapes-geochemical analysis of frozen-taiga geosystems. Shchetnikov, A.I., 1989, 127p., rus 44-2068

- Gas survey in the snow of Kuznetsk basin. Vyshemirskii, V.S., et al, 1989, p.182-183, rus 44-2605

- Geochemistry of glaciers of Ak-Shyryak. Makarov, V.N., et al, 1989, p.130-143, rus 44-3241

- Hydrology and geochemistry in a Canadian tundra watershed. Bursey, G.G., et al, 1990, p.159-165, eng 44-3658

- Reconnaissance geology and exploration geochemistry of King Cove, Alaska Peninsula. DuBois, G.D., et al, 1989, 23p., eng 44-3763

- Thermal maturity and organic geochemistry of the Kandik basin region, east-central Alaska. Underwood, M.B., et al, 1989, 41p., eng 44-3764

Geochronology

- Climatic evolution of the eastern Canadian Arctic and Baffin Bay. Andrews, J.T., 1988, p.235-250, eng 44-14

- Radiocarbon dating by accelerator mass spectrometry. Blake, W., Jr., 1989, p.59-74, eng 44-109

- Holocene proxy-climate data from the Canadian Arctic. Ovenden, L., 1988, 11p., eng 44-370

- Isotopic dating of the late Pleistocene Laurentide glacier. Hillaire-Marcel, C., et al, 1989, p.125-138, eng 44-696

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- Geological history of glacial Lake Algonquin and Great Lakes. Larsen, C.E., 1987, 36p., eng 44-799

- Implications of the Vostok core dust record. Petit, J.R., et al, 1990, p.56-58, eng 44-1537

- Age-depth profile in the upper part of a steady-state ice sheet. Reeh, N., 1989, p.406-417, eng 44-1903

Geocryology

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- Geocryological-hydrogeological studies of free water transfer zones. Piguzova, V.M., ed, 1989, 160p., rus 44-142

- Cryogenic transformation of ground water and surface rocks in coal deposits. Fotiev, S.M., et al, 1989, p.48-56, rus 44-148

- Cryogenic transformation of ground water and surface rocks in coal deposits. Fotiev, S.M., et al, 1989, p.48-56, rus 44-148

- Microbiological characteristics in cryolithozone sedimentary rocks. Gilichinskii, D.A., et al, 1989, p.103-115, rus 44-162

- Ground ice of Spitsbergen. Vtiurin, B.I., 1989, p.69-75, rus 44-338

- Role of gas hydrates in the cryolithogenesis of marine deposits. Romanovskii, N.N., et al, 1988, p.1-12, eng 44-593

- Copper sulfates from cryogenic zone of hypergenesis of the Udokan deposit. Iakhtontova, L.K., et al, 1988, p.38-43, eng 44-594

- Geocryology of the USSR: Eastern Siberia and the Far East. Ershov, E.D., ed, 1989, 514p., rus 44-703

- Congress of engineering geologists, hydrogeologists and geocryologists. Trofimov, V.T., et al, 1989, p.3-20, rus 44-1252

- Isotopic studies of natural water and ice in Western Siberia. Kritauk, L.N., et al, 1989, p.76-94, rus 44-1257

- Gas hydrate formation as a special type of oceanic cryolithogenesis. Solov'ev, V.A., et al, 1989, p.115-120, rus 44-1756

- Arthrobacter isolates from soils of Schirmacher Ponds. Shivaji, S., et al, 1989, p.225-229, eng 44-1865

- Physicochemical processes in the cryolithozone. Mel'nikov, P.I., et al, 1989, p.3-8, rus 44-2052

- Modeling the upper profile under permafrost conditions. Tabulevich, V.N., ed, 1989, 128p., rus 44-2074

- Engineering-geocryological safeguarding of the building of structures. Mel'nikov, V.P., ed, 1989, 135p., rus 44-2144

- Geothermal investigations of the cryolithozone of Western Siberia. Deviatkin, V.N., 1989, p.3-11, rus 44-2145

- Deformation-strength properties of frozen ground. Lefkam, A.B., et al, 1989, p.19-29, rus 44-2147

- Rock streams in bald-peak mountain belts. Romanovskii, N.N., et al, 1989, 148p., rus 44-2403

- Former glaciation and permafrost in Asia. Danilov, I.D., et al, 1989, p.92-103, eng 44-2438

- Radiocarbon datings obtained by the Geochemistry of Permafrost Laboratory, USSR. Kostiukevich, V.V., et al, 1988, p.143-145, rus 44-2521

- Pleistocene ice wedge casts. Grosse, S.A., et al, 1989, p.125-136, eng 44-2618

- Saving the North: notes from an international symposium on geocryology. Kliuchnikova, L.P., 1989, p.16-23, rus 44-2655

- Geocryological surveys in the mountains of the USSR. Severskii, I.V., ed, 1989, 168p., rus 44-3228

- Ground ice in the deposits on slopes of Tien Shan and Pamirs. Ermolin, E.D., 1989, p.3-13, rus 44-3229

- Deposits on slopes of the Adycha valley. Liubimirov, A.S., 1989, p.13-20, rus 44-3230

- Engineering and geocryological zoning along the Amur-Yakutsk Main Line within the Aldan plateau. Dorofeev, I.V., et al, 1989, p.20-31, rus 44-3231

- Geocryological and geothermal features of the deposits near Kumtor. Ermolin, E.D., et al, 1989, p.31-40, rus 44-3232

- Pereletoks in the low, isolated hills of Kazakhstan. Gorbunov, A.P., 1989, p.40-48, rus 44-3233

- Cryogenic textures of the periglacial zone of Zailiyskiy Alatau. Ukhnaiev, V.A., 1989, p.49-62, rus 44-3234

- Engineering and geocryological conditions in high mountains of Tien Shan. Chaus, A.K., 1989, p.62-66, rus 44-3235

- Naleds in the northern Ural. Oberman, N.G., 1989, p.67-75, rus 44-3236

- Cryo-facial features of rock streams in northern Transbaykal. Romanovskii, N.N., et al, 1989, p.75-98, rus 44-3237

- Facies of rock glaciers. Titkov, S.N., 1989, p.98-109, rus 44-3238

- Rock glacier landscapes in northern Tien Shan. Severskii, E.V., 1989, p.109-117, rus 44-3239

- Ice reserves and main features of the current glaciation of Tien Shan. Vilesov, E.N., et al, 1989, p.117-130, rus 44-3240

- Geochemistry of glaciers of Ak-Shyryak. Makarov, V.N., et al, 1989, p.130-143, rus 44-3241

- Slope dynamics and cryogenic structure of active layer, Yakutia. Vasil'ev, I.S., 1989, p.143-152, rus 44-3242

- Effect of slope exposure on snow cover distribution in the mountains. Severskii, S.I., 1989, p.152-162, rus 44-3243

- Seminar on engineering geology and hydrogeology, 1989, 1989, 272p. (Pertinent p.124-129, 191-206, 237-239), rus 44-3489

- Proceedings of the Fifth Canadian Permafrost Conference, 1989, 1990, 424p., eng 44-3635

- Introduction to Lanzhou Institute of Glaciology and Geocryology, Academia Sinica, 1988, 17p., eng 44-3868

- Linear structures on permafrost. Nekrasov, I.A., ed, 1990, 184p., rus 44-4291

- Change in the permafrost conditions in the Angara-Lena zone of the Baykal-Amur railroad. Leshchikov, F.N., et al, 1990, p.74-83, rus 44-4304

- Forecasting of changes in natural conditions of West Siberia. Popov, A.I., ed, 1988, 237p. (Pertinent p.62-84, 101-168, 187-216), rus 44-4411

- Geocryological studies of oil- and gas-bearing areas. Grechishchev, S.E., et al, 1989, p.9-17, rus 44-4507

- Environmental protection of West Siberia during its industrialization. Zakharov, I.U.F., et al, 1989, p.17-26, rus 44-4508

- Gas industry and ecological safety in permafrost. Antonov-Druzhinin, V.P., et al, 1989, p.39-49, rus 44-4510

- Geocryological aspects of geology of gas deposits in Central Yakutia. Gravis, G.F., et al, 1989, p.57-65, rus 44-4512

- Developing of low-waste technology for well drilling in the Far North. Rubanova, N.A., et al, 1989, p.114-118, rus 44-4521

- Achievements and prospects for development in modern geocryology. Mel'nikov, P.I., et al, 1989, p.3-17, rus 44-4535

Geodetic surveys

- Establishing geodetic datum points in permafrost areas. Bogdanov, B.G., [1990, 160p., rus] **44-4126**

Geoelectricity

- Rock glaciers of the Argentine Andes. Barsch, D., et al., [1989, P.151-163, eng] **44-304**

Geographic names

- See *also*: Gazetteers

Geography

- Geography and military confrontation in the North. Ostreng, W., [1989, p.11-15, eng] **44-1766**

- See *also*: Biogeography

Geologic processes

- Alternative approach to the study of pedogenic chronosequences. Messer, A.C., [1989, p.221-229, eng] **44-3005**

- Geostrophical features of the Lambert Glacier rift zone (Antarctica) using space images. Bud'ko, V.M., et al., [1990, p.926-942, eng] **44-3964**

- Conference of arctic and nordic countries on coordination of arctic research; Proceedings, Pt.1 and Pt.2. [1990, 366p. + 445p., eng] **44-4061**

- Present concept of the central Arctic geology and mineral resources. Gramberg, I.S., et al., [1990, p.279-285, eng] **44-4099**

- Geology of the Central Arctic: problems and decisions. Lisitsyn, A.P., [1990, p.285-301, eng] **44-4100**

- Main factors of regional oil-and-gas-bearing potential in the Soviet West Arctic. Ostistyl, B.K., et al., [1990, p.359-361, eng] **44-4107**

Geologic structures

- Permafrost formation in Huola River basin, North Da Hinggan Ling. Guo, D.X., et al., [1989, p.215-222, chj] **44-2416**

- Reconnaissance geology and exploration geochemistry of King Cove, Alaska Peninsula. DuBois, G.D., et al., [1989, 23p., eng] **44-3763**

- Thermal maturity and organic geochemistry of the Kandik basin region, east-central Alaska. Underwood, M.B., et al., [1989, 41p., eng] **44-3764**

- Geology of the Central Arctic: problems and decisions. Lisitsyn, A.P., [1990, p.285-301, eng] **44-4100**

- Marine seismic explorations in the Arctic: methods, technology and results. Malovitski, I.A.P., et al., [1990, p.330-337, eng] **44-4102**

- Geological and tectonic cartography of the Arctic. Pogrebitsky, I.U.E., et al., [1990, p.337-342, eng] **44-4103**

- Results of an icebreaker cruise to the Northwind Ridge, Arctic Ocean Basin. Grantz, A., [1990, p.343-345, eng] **44-4104**

- Recent geodynamics and seismicity in the eastern sector of the Soviet Arctic. Imaev, V.S., et al., [1990, p.345-346, eng] **44-4105**

Geological maps

- Geomorphological mapping of the Bulate Valley, Tianshan Mountains. Iwata, S., et al., [1989, p.350-362, eng] **44-3612**

Geological surveys

- Alaskan geological and geophysical transect. Nokleberg, W.J., ed., [1989, 131p., eng] **44-432**

- Greenland ice cap aeromagnetic survey, 1987. Thorning, L., et al., [1988, p.70-72, eng] **44-486**

- Significant metalliferous lode deposits and placer districts of Alaska. Nokleberg, W.J., et al., [1987, 104p. + append., eng] **44-533**

- Yearbook, fiscal year 1988. [1989, 134p., eng] **44-657**

- Petrographic correlation in paleogeological studies. Khazaradze, R.D., [1989, p.62-65, rus] **44-2049**

- Glacial geology and geomorphology of North America. [1989, 2 vols., var.p., eng] **44-3224**

- Origin of natural gas hydrates on the North Slope of Alaska. Collett, T.S., et al., [1989, p.3-9, eng] **44-3802**

- Ice gouges in the Beaufort Sea, Alaska, 1977-1985. Weber, W.S., et al., [1989, 72p., eng] **44-3956**

- Results of an icebreaker cruise to the Northwind Ridge, Arctic Ocean Basin. Grantz, A., [1990, p.343-345, eng] **44-4104**

Geology

- Science in Antarctica, Vol.5: Earth sciences. Yoshida, Y., ed., [1986, 427p., jpn] **44-211**

- Theoretical and experimental analyses of glacial abrasion and quarrying. Iverson, N.R., [1989, 240p., eng] **44-975**

- 25th annual meeting. [1990, 82p., eng] **44-2767**

- See *also*: Engineering geology; Glacial geology; Hydrogeology; Marine geology; Photogeology

Geomagnetism

- Geophysical activities in Greenland of the Danish Meteorological Institute. Lassen, K., [1990, p.32-40, eng] **44-4063**

- Dynamics of spatial and temporal variations of electromagnetic processes in the Arctic (wave phenomena). Troitskaya, V.A., [1990, p.40-43, eng] **44-4064**

- Geophysical processes in the polar cusp. Raspopov, O.M., [1990, p.44-47, eng] **44-4065**

- Aurora-related studies in Finland 1988. Suckdorff, C., [1990, p.47-52, eng] **44-4066**

Geomorphology

- Microbiological characteristics in cryolithozone sedimentary rocks. Gliichinskii, D.A., et al., [1989, p.103-115, rus] **44-162**

- Glaciotectional landforms and structures. Aber, J.S., et al., [1989, 201p., eng] **44-368**

- Arctic basins physiography. Statement of present knowledge (1983). Vanney, J.R., [1987, p.63-82, fre] **44-598**

- Geomorphology of the Pleistocene glaciation, Sichuan Province. Yi, C.L., [1989, p.76-81, chj] **44-653**

- Studies of glacial deposits by scanning electron microscopy. Li, S.J., [1989, p.89-91, chj] **44-655**

- Landforms and landform evolution in West Germany. Ahnert, F., ed., [1989, 347p., eng] **44-878**

- Geological indicators of former glaciations in the middle Kolyma basin. Chanyshcheva, M.N., [1989, p.60-67, eng] **44-1003**

- Lower Rhine: geomorphological changes. Van Urk, G., et al., [1989, p.167-182, eng] **44-1251**

- Determining avalanche hazard zone boundaries. Blagoveshchenskii, V.P., [1989, p.223-232, rus] **44-1593**

- Recent and older glaciation in the Ardon River valley. Gerasimov, V.A., [1989, p.55-66, rus] **44-1782**

- Problem of geomorphological correlation. Timofeev, D.A., ed., [1989, 253p., rus] **44-2048**

- Petrographic correlation in paleogeological studies. Khazaradze, R.D., [1989, p.62-65, rus] **44-2049**

- Geomorphological criteria for correlating moraines of various ages. Borisov, B.A., et al., [1989, p.78-85, rus] **44-2050**

- Correlating marginal ice zones, lake shore formations, and river terraces. Raukas, A.V., et al., [1989, p.208-217, rus] **44-2051**

- Strandline Glacier, Terra Nova Bay, Antarctica. Baroni, C., et al., [1987, p.337-350, ita] **44-2099**

- Pollen from permafrost, SW Yukon territory. Wang, X.C., [1989, p.99-112, chj] **44-2405**

- Quaternary paleogeography and periglacial geomorphology of Mt. Huangshan. Zhou, B.G., et al., [1989, p.161-166, chj] **44-2410**

- Quaternary glacial geomorphology, Sigong River Valley, China. Lou, T.M., [1989, p.261-268, chj] **44-2421**

- River breakthrough and geomorphic changes in a permafrost environment. Mackay, J.R., et al., [1989, p.171-184, eng] **44-2620**

- Slushflows and their geomorphologic effects. Nyberg, R., [1989, p.185-198, eng] **44-2621**

- Cold surface layer on Storglaciären. Holmlund, P., et al., [1989, p.241-244, eng] **44-2624**

- 25th annual meeting. [1990, 82p., eng] **44-2767**

- Glacial geology and geomorphology of North America. [1989, 2 vols., var.n., eng] **44-3224**

- Ground ice in the deposits on slopes of Tien Shan and Pamirs. Ermolin, E.D., [1989, p.3-13, rus] **44-3229**

- Engineering and geocryological zoning along the Amur-Yakutsk Main Line within the Aldan plateau. Dorofeev, I.V., et al., [1989, p.20-31, rus] **44-3231**

- Engineering and geocryological conditions in high mountains of Tien Shan. Chaus, A.K., [1989, p.62-66, rus] **44-3235**

- Cryo-facial features of rock streams in northern Transbaykal. Romanovskii, N.N., et al., [1989, p.75-98, rus] **44-3237**

- Facies of rock glaciers. Titkov, S.N., [1989, p.98-109, rus] **44-3238**

- Rock glacier landscapes in northern Tien Shan. Severskii, E.V., [1989, p.109-117, rus] **44-3239**

- Large scale mapping of the Borg Massif. Brunk, K., [1989, 102p., ger] **44-3328**

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- Character and magnitude of landslides, Ellesmere I. Lewkowicz, A.G., [1990, p.111-118, eng] **44-3651**

Geophysical surveys

- Alaskan geological and geophysical transect. Nokleberg, W.J., ed., [1989, 131p., eng] **44-432**

- Arctic basins physiography. Statement of present knowledge (1983). Vanney, J.R., [1987, p.63-82, fre] **44-598**

- Ice and snow geophysics in area II. Leppäranta, M., et al., [1988, p.41-68, eng] **44-1426**

- Seminar on engineering geology and hydrogeology, 1989. [1989, 272p. (Pertinent p.124-129, 191-206, 237-239), rus] **44-3489**

- Frozen ground survey for airstrip construction at Nunavik, Quebec. Seguin, M.K., et al., [1990, p.239-245, fre] **44-3668**

- Antarctic ice sheet brightness temperature variations. Jezek, K.C., et al., [1990, p.217-223, eng] **44-3854**

- Geophysical activities in Greenland of the Danish Meteorological Institute. Lassen, K., [1990, p.32-40, eng] **44-4063**

Geotextiles

- Road over permafrost: design of access road in Alaska. Hartely, M.C., et al., [1988, p.19-22, eng] **44-1491**

Geothermal thawing

- Transport of hygroscopic particles in perennial ground ice. Perfect, E., et al., [1990, p.37-42, eng] **44-3641**

Geothermy

- Geothermal energy applications in wastewater treatment. Vigrass, L.W., et al., [1989, p.55-72, eng] **44-213**

- Permafrost distribution and Quaternary history of Mackenzie Delta. Judge, A.S., [1986, p.41-45, eng] **44-781**

- Permafrost-depth calculation by the ground temperature method. Yuan, X.H., [1989, p.239-248, chj] **44-2419**

- Radio echo soundings and geothermy at Mt. Melbourne. Delisle, G., et al., [1989, p.435-453, eng] **44-3052**

Germany

- Landforms and landform evolution in West Germany. Ahnert, F., ed., [1989, 347p., eng] **44-878**

- Karlsruhe**
Pb-210 in air and snow near nuclear research center. Parveen, N., et al., [1988, 16p., eng] **44-959**

- Oder River**
Calculation and forecasting of ice conditions on the Oder. Freydanck, E., [1986, 53p., ger] **44-2042**

Glacial deposits

- Organic carbon accumulation in soils near Burroughs Glacier. James, L.A., [1988, p.50-70, eng] **44-49**

- Drumlins—products of controlled or uncontrolled glaciodynamic response. Menzies, J., [1989, p.151-158, eng] **44-118**

- Sediments of glacial-interglacial cycles in the Norwegian Sea. Heinrich, R., et al., [1989, p.283-319, eng] **44-219**

- Pliocene-Pleistocene ice volume on Pacific margin of Antarctic Peninsula. Larter, R.D., et al., [1989, p.731-734, eng] **44-306**

- Boundary of the last ice sheet in the lower Pechora basin. Gushitser, B.I., et al., [1985, p.97-107, rus] **44-482**

- Glacial sediment and hydro-electric power. Bogen, J., [1989, p.6-11, eng] **44-538**

- Geomorphology of the Pleistocene glaciation, Sichuan Province. Yi, C.L., [1989, p.76-81, chj] **44-653**

- Studies of glacial deposits by scanning electron microscopy. Li, S.J., [1989, p.89-91, chj] **44-655**

- Sediment flux in a fiord/shelf transect: annual report Oct. 86-Sep. 88. Andrews, J.T., [1988, 59p., eng] **44-669**

- Geological indicators of former glaciations in the middle Kolyma basin. Chanyshcheva, M.N., [1989, p.60-67, eng] **44-1003**

- Carbonate deposits and sea ice advance, Ross Sea. Lawrence, M.J.F., et al., [1989, p.267-278, eng] **44-1110**

- Forecasting the structural characteristics of soils. Busel, I.L., [1989, 245p., rus] **44-1753**

- Proximal glacial-marine tills deposited from a stagnant ice-sheet. Drozdowski, E., [1988, p.119-126, eng] **44-1855**

- Apron entrainment of sub-polar glaciers, Ellesmere I. Evans, D.J.A., [1989, p.317-324, eng] **44-1892**

- Correlating glacial deposits in the European USSR using lithological data. Gaigalas, A.I., et al., [1989, p.179-185, rus] **44-1921**

- Sedimentation beneath ice shelves—the view from ice stream B. Alley, R.B., et al., [1989, p.101-120, eng] **44-1943**

- Alpine proglacial fluvial sediment transfer. Warburton, J., [1989, 471p., eng] **44-2101**

- Primary glacial relief of interfluvies in a boundary region. Antonov, S.I., [1989, p.43-47, rus] **44-2247**

- Drumlin physical dimensions as a function of subglacial processes. Piotrowski, J.A., [1989, p.429-441, eng] **44-2279**

- Facies model for deglaciation in an alpine valley. Pugin, A., [1989, p.235-248, eng] **44-2391**

- Glacial peripheral moraines at Gongba Glaciers, Gongga Mt. Kang, J.C., [1989, p.172-176, chj] **44-2412**

- Former extension of the East Antarctic ice sheet. Lundqvist, J., [1989, p.109-117, eng] **44-2444**

- Glacial facies models. Sharpe, D.R., [1988, p.67-70, eng] **44-2585**

- Glacitectonic structures and sediments at sub-polar glacier margins. Evans, D.J.A., [1989, p.113-123, eng] **44-2617**

- Forest transitions and buried glacial outwash. Dodge, S.L., [1989, p.137-144, eng] **44-2619**

- Glacial outwash plain revisited. Jonsson, J., [1989, p.199-209, eng] **44-2622**

- Glacial-marine sedimentation. Anderson, J.B., et al., [1989, 127p., eng] **44-2939**

- Role of spatial and temporal variations in glacier thermal regime. Mooers, H.D., [1990, p.243-251, eng] **44-3007**

- Glaciers of Terra Nova Bay area. Chinn, T.J.H., et al., [1989, p.299-319, eng] **44-3051**

- Mineralogy of glacial deposits in Spitsbergen. Stankowska, A., [1989, p.303-316, eng] **44-3055**

- Outwash tidal flat in Spitsbergen. Borowka, M., [1989, p.379-384, eng] **44-3058**

- Sedimentation in the Barents Sea. Lavrushin, I.U.A., et al., [1990, p.82-90, rus] **44-3065**

- Glacial history of the Ross Sea region based on DSDP Leg 28 Sites 272 and 273. Savage, M.L., [1982, 187p., eng] **44-3184**

- Geomorphological map of the Northern Foothills in Terra Nova Bay. Baroni, C., [1987, p.195-211, eng] **44-3246**

Glacial deposits (cont.)

- Melt-out tills at the margins of stagnant glaciers. Paul, M.A., et al. [1990, p.51-69, eng] **44-3512**
- Coastal sedimentation along glacial outwash plain shorelines in northwest Spitsbergen. Héquette, A., et al. [1990, p.77-88, fre] **44-3533**
- Topography, microclimates and vegetation of eskers in Finland. Rikkinen, J., [1989, p.87-150, eng] **44-3616**
- Granular sediments in ground ice, Beaufort Sea coast. Gowan, R.J., et al. [1990, p.283-290, eng] **44-3673**
- Diffusivity of a glacial-outwash aquifer by the floodwave-response technique. Reynolds, R.J., [1987, p.290-299, eng] **44-3879**
- Marine controls on modern sedimentation on the antarctic continental shelf. Jacobs, S.S., [1989, p.121-153, eng] **44-3934**
- Seismic reflection studies of sediments in the Ross Sea. Karl, H.A., [1989, p.205-223, eng] **44-3936**
- Glaciomarine sedimentation in the Barents Sea. Elverhøi, A., et al. [1989, p.225-250, eng] **44-3937**
- Glaciogenic sediments in the Barents Sea. Vorren, T.O., et al. [1989, p.251-272, eng] **44-3938**
- Glacial sedimentation along the eastern Canadian margin. Josenhans, H.W., et al. [1989, p.273-300, eng] **44-3939**
- Sediment deposition in glacier-influenced fjords. Syvitski, J.P.M., [1989, p.301-329, eng] **44-3940**
- Macrofauna of Canadian arctic fjords. Dale, J.E., et al. [1989, p.331-358, eng] **44-3941**
- Glaciomarine sediments of the Alaska shelf and fjords. Powell, R.D., et al. [1989, p.359-390, eng] **44-3942**
- Glaciomarine sediments in the Gulf of Alaska. Carlson, P.R., [1989, p.391-416, eng] **44-3943**
- Geochemistry of subglacial calcites: implications for the hydrology of the basal water film. Sharp, M., et al. [1990, p.141-152, eng] **44-4047**
- Antarctic sector of the Pacific. Glasby, G.P., ed. [1990, 396p., eng] **44-4052**
- Sediments of the antarctic Pacific. Anderson, J.B., [1990, p.187-206, eng] **44-4055**
- Last interglacial/glacial cycle on Svalbard, as seen from the Kapp Ekholm section. Mangerud, J., et al. [1990, p.63-66, eng] **44-4108**
- Model of the Late Pleistocene glaciation of the Eurasian Arctic shelf. Dunaev, N.N., et al. [1990, p.70-72, eng] **44-4110**
- Pleistocene glaciomarine deposits on Baldwin Peninsula, Alaska. Huston, M.M., et al. [1990, p.111-114, eng] **44-4173**
- Soil development at Beardmore Glacier. Bockheim, J.G., et al. [1990, p.144-157, eng] **44-4290**
- Cryostatic desiccation processes associated with sand intracasts. Menzies, J., [1990, p.684-693, eng] **44-4413**
- Late Quaternary development of the Champlain Sea basin. Gadd, N.R., ed. [1988, 312p., eng] **44-4449**
- History of the northwestern arm of the Champlain Sea. Barnett, P.J., [1988, p.25-36, eng] **44-4452**
- Ice-proximal deposits of the Champlain Sea at South Gloucester, near Ottawa, Canada. Rust, B.R., [1988, p.37-45, eng] **44-4453**
- Champlain Sea subwash fan at St. Lazare, Quebec. Burbidge, G.H., et al. [1988, p.47-61, eng] **44-4454**
- Glaciomarine fan deposition in the Champlain Sea. Sharpe, D.R., [1988, p.63-82, eng] **44-4455**
- Lithofacies relationships in a freshwater-marine transition of the Champlain Sea. Gadd, N.R., [1988, p.83-90, eng] **44-4456**
- Glacial marine facies of the late Wisconsinan Champlain Sea (southern Quebec). Pichonnet, G., [1988, p.91-105, eng] **44-4457**
- Sedimentology and depositional environments of the Lund Diamicton, southern Sweden. Persson, K.M., et al. [1990, p.181-199, eng] **44-4477**
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- Erratics of Prince Patrick Island: glacial or ice-rafted sediments. Hodgson, D.A., [1990, p.67-70, eng] **44-4493**
- Proceedings of the Symposium: Transport of Glacial Drift in Finland. [1989, 74p., eng] **44-4500**
- Transport of erratics in Finland and Estonia. Donner, J., [1989, p.7-13, eng] **44-4501**
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- Glacial valley cross-profile morphology and development. Hirano, M., et al. [1988, p.707-716, eng] **44-55**
- Younger Dryas-Preboreal moraines and deglaciation in southwestern Värmland, Sweden. Lundqvist, J., [1988, p.301-316, eng] **44-80**
- Weathering forms on the island of Hailo, Bohuslän. Lidmar-Bergström, K., [1988, p.111-118, swe] **44-92**
- Relationships between ice sheet dynamics and bedrock relief. Kaitanen, V., [1989, p.1-15, eng] **44-105**
- Subglacial meltwater discharge in a tidewater glacier environment. Pfirman, S.L., et al. [1989, p.265-281, eng] **44-218**
- Glacial sediment and hydro-electric power. Bogen, J., [1989, p.6-11, eng] **44-538**
- Environmental change of planet Mars demonstrated by landforms. Tricart, J.L.F., [1988, p.385-407, eng] **44-695**
- Ice-thrust terrains and glaciotectionic settings in central Alberta. Tsui, P.C., et al. [1989, p.1308-1318, eng] **44-765**
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- Waves on glacier beds. Mazo, V.L., [1989, p.179-182, eng] **44-1541**
- Striations produced by subglacial drainage in Norway. McCarroll, D., et al. [1989, p.193-196, eng] **44-1544**
- W.J. McGee, early discoverer of glacial erosion laws. Harbor, J.M., [1989, p.419-425, eng] **44-1904**
- Contrast between glacially crushed quartz transported by mountain or by continental ice. Clark, P.U., et al. [1989, p.1195-1205, eng] **44-2277**
- Denudation rates in the Arctic estimated from lake sediments on Spitsbergen, Svalbard. Svendsen, J.I., et al. [1989, p.153-168, eng] **44-2387**
- Landforms due to glacial erosion in the Luojishan Mt. Liu, G.N., [1989, p.249-259, chi] **44-2420**
- Glacial facies models. Sharpe, D.R., [1988, p.67-70, eng] **44-2585**
- Catastrophic breakup of a calving glacier. Theakstone, W.H., [1989, p.245-253, eng] **44-2625**
- Large scale mapping of the Borg Massif. Brunk, K., [1989, 102p., ger] **44-3328**
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- Ice-thrust features and the Maymont landslide in the North Saskatchewan River valley. Stauffer, M.R., et al. [1990, p.229-242, eng] **44-3573**
- Drumlins, subglacial meltwater floods, and ocean responses. Shaw, J., [1989, p.853-856, eng] **44-4143**
- Proglacial glaciotectionic deformation and push moraine origin. Hart, J.K., [1990, p.165-180, eng] **44-4476**
- Deglaciation in the District of Mackenzie, Northwest Territories. McMartin, J., et al. [1990, p.55-66, eng] **44-4492**
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- Glacial geology**
- Glaciotectionic landforms and structures. Aber, J.S., et al. [1989, 201p., eng] **44-368**
- Bedrock geology of the Koyukuk basin, Brooks Range, and Arctic Slope. Mull, C.G., ed. [1989, 2 vols. + appends., eng] **44-427**
- Glacial geology of the Brooks Range. Hamilton, T.D., [1989, p.23-26, eng] **44-428**
- Road log from Yukon crossing (mile 56) to south fork Koyukuk River (mile 156.2). Patton, W.W., Jr., et al. [1989, p.59-73, eng] **44-429**
- Road log from Chandalar Shelf (mile 237.1) to Prudhoe Bay (mile 414). Mull, C.G., et al. [1989, p.101-131, eng] **44-430**
- Quaternary geology and permafrost between Fairbanks and Anchorage. Péwé, T.L., ed. [1989, 54p., eng] **44-431**
- Scales for the Valday glaciation of the Barents Sea shelf. Dunaev, N.N., et al. [1989, p.1437-1441, rus] **44-979**
- Geomorphology and glaciology of Terra Nova Bay. Baroni, C., et al. [1987, p.321-336, ita] **44-2098**
- Strandline Glacier, Terra Nova Bay, Antarctica. Baroni, C., et al. [1987, p.337-350, ita] **44-2099**
- Quaternary glacial geomorphology, Sigong River Valley, China. Lou, T.M., [1989, p.261-268, chi] **44-2421**
- Former extension of the East Antarctic ice sheet. Lundqvist, J., [1989, p.109-117, eng] **44-2444**
- Glacier margin morphology in Spitsbergen. Goner, P., et al. [1989, p.419-427, eng] **44-3060**
- Glacial geology and geomorphology of North America. [1989, 2 vols., var.p., eng] **44-3224**
- Geomorphological mapping of the Bulate Valley, Tianshan Mountains. Iwata, S., et al. [1989, p.350-362, eng] **44-3612**
- Topography, microclimates and vegetation of eskers in Finland. Rikkinen, J., [1989, p.87-150, eng] **44-3616**
- Sediments of the antarctic Pacific. Anderson, J.B., [1990, p.187-206, eng] **44-4055**
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- Proceedings of the Symposium: Transport of Glacial Drift in Finland. [1989, 74p., eng] **44-4500**
- Transport of erratics in Finland and Estonia. Donner, J., [1989, p.7-13, eng] **44-4501**
- How the glacial erratics were broken loose from the bedrock. Laitakari, I., [1989, p.15-18, eng] **44-4502**
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- On measuring the length of glacial transport. Salonen, V.P., et al. [1989, p.25-32, eng] **44-4504**
- Glacial hydrology**
- Northeast glacial aquifers. Randall, A.D., ed. [1988, 156p., eng] **44-2**
- Applied hydrology in the development of northern basins. [1988, 347p., eng] **44-232**
- Hydrological background to a glacier-influenced hydropower station in Greenland. Kern-Hansen, C., [1988, p.35-45, eng] **44-234**
- New approaches to studying effects of glacier ablation on runoff in Greenland. Braithwaite, R.J., [1988, p.71-76, eng] **44-236**
- Calculation of normal runoff in glacier-covered areas. Pettersson, L.E., [1988, p.95-103, eng] **44-239**
- Jökulhlaups from Strandline Lake, Alaska (especially the 1982 event). Sturm, M., et al. [1989, 19p., eng] **44-395**
- Hydraulic engineering. [1989, 1212p., eng] **44-422**
- Glacial basin flow for a power operation model. Shen, Y.Y., et al. [1989, p.1078-1083, eng] **44-426**
- Glacier-hydrological conditions on the Inland Ice. Thomsen, H.H., et al. [1988, 1 fold. map and text, eng] **44-487**
- Runoff from the Greenland ice sheet and hydro-electric power. Braithwaite, R.J., et al. [1989, p.12-15, eng] **44-539**
- Glacier outburst floods at Mount Rainier, Washington State, U.S.A. Driedger, C.L., et al. [1989, p.51-55, eng] **44-548**
- Features of the firm of South Cascade Glacier, WA. Fountain, A.G., [1989, p.69-74, eng] **44-551**
- Planned reservoir and flooding the tongue of a glacier. Funk, M., et al. [1989, p.76-81, eng] **44-552**
- Hydrology of the Biafo Glacier, Karakoram range, Himalaya Mts. Hewitt, K., et al. [1989, p.103-108, eng] **44-556**
- Possible radio-echo method of locating englacial and subglacial waterways. Kennett, M.L., [1989, p.135-139, eng] **44-562**
- Changes of glacial hydrology at Austre Okstindbreen, Norway, 1976-87. Theakstone, W.H., et al. [1989, p.252-256, eng] **44-584**
- Glacier surveys for planning hydro-electric power, West Greenland. Thomsen, H.H., et al. [1989, p.257-261, eng] **44-585**
- Floods caused by a glacier-dammed lake at the Folgefonni ice cap, Norway. Tvede, A.M., [1989, p.262-264, eng] **44-586**
- Snow temperature and meltwater percolation of a glacier. Cai, B.L., et al. [1989, p.60-68, chi] **44-651**
- Hydrology of ice caps in volcanic regions. Björnsson, H., [1988, 139p., eng] **44-1319**
- Water reserves in Kazakhstan glaciers and prospects for their use. Tokmagambetov, G.A., et al. [1989, p.5-17, rus] **44-1385**
- Cold surface layer on Storglaciären. Holmlund, P., et al. [1989, p.241-244, eng] **44-2624**
- Sedimentation in proglacial Ivory Lake, Southern Alps, New Zealand. Hicks, D.M., et al. [1990, p.26-42, eng] **44-2661**
- Denudation of glaciated and non-glaciated catchments. Kostrzewski, A., et al. [1989, p.317-367, eng] **44-3056**
- Satellite-supported methods for studying ice fields and underground water in the Eastern Pamirs. Topchiev, A.G., [1990, p.943-960, eng] **44-3965**
- See also: Subglacial drainage
- Glacial lakes**
- Controls on sedimentation in a late Devensian ice-dammed lake, Achnashen, Scotland. Benn, D.I., [1989, p.31-42, eng] **44-83**
- Jökulhlaups from Strandline Lake, Alaska (especially the 1982 event). Sturm, M., et al. [1989, 19p., eng] **44-395**
- Advance of Hubbard Glacier and 1986 outburst of Russell Fiord, Alaska, U.S.A. Mayor, L.R., [1989, p.189-194, eng] **44-572**
- Floods caused by a glacier-dammed lake at the Folgefonni ice cap, Norway. Tvede, A.M., [1989, p.262-264, eng] **44-586**
- Pro-glacial lake in the French Alps. Vallon, M., [1989, p.273-278, eng] **44-589**
- Geological history of glacial Lake Algonquin and Great Lakes. Larsen, C.E., [1987, 36p., eng] **44-799**
- Hydrology of ice caps in volcanic regions. Björnsson, H., [1988, 139p., eng] **44-1319**
- Catastrophic outburst floods. Clague, J., [1987, p.18-21, eng] **44-1533**
- Glacial Lake Wisconsin. Clayton, L., et al. [1989, 80p., eng] **44-2070**
- Sedimentation in proglacial Ivory Lake, Southern Alps, New Zealand. Hicks, D.M., et al. [1990, p.26-42, eng] **44-2661**
- Sedimentation in proglacial lakes in Spitsbergen. Wojciechowski, A., [1989, p.385-399, eng] **44-3059**
- Water chemistry of glacial lakes in Spitsbergen. Stankowska, A., [1989, p.429-442, eng] **44-3061**
- Glacier reaction to water level increase of glacial lake. Hooke, R.L., et al. [1989, p.113-126, eng] **44-3095**
- Glacial Lake Missoula and the Channeled Scabland. Breckenridge, R.M., ed. [1989, 72p., eng] **44-3225**
- Debris flows and lake bursts from glaciers in China. Deng, Y.X., [1989, p.205-220, chi] **44-3892**
- Drumlins, subglacial meltwater floods, and ocean responses—comment and reply. Kehew, A.E., et al. [1990, p.479-480, eng] **44-4144**

- Champlain Sea: evolution of concepts, and bibliography.** Elson, J.A., [1988, p.1-13, eng] **44-4450**
- Basin, the ice, the Champlain Sea.** Gadd, N.R., [1988, p.15-24, eng] **44-4451**
- Lithofacies relationships in a freshwater-marine transition of the Champlain Sea.** Gadd, N.R., [1988, p.83-90, eng] **44-4456**
- Lake Agassiz and its contribution to flow through the Ottawa-St. Lawrence system.** Teller, J.T., [1988, p.281-289, eng] **44-4458**
- Glacial meteorology**
- Study of relationship between climate and mountain glaciers.** Bai, Z.Y., [1989, p.287-297, chij] **44-3607**
- Local climate of glaciers in Tianshan Mountains.** Ohata, T., et al, [1989, p.325-334, eng] **44-3610**
- Radiational climate in cirques.** Bai, Z.Y., et al, [1989, p.336-349, chij] **44-3611**
- Glacier fluctuations and climate in the Cordillera Blanca, Peru.** Kaser, G., et al, [1990, p.136-140, eng] **44-4179**
- Glaciers and climate in Svalbard.** Lefauconnier, B., et al, [1990, p.148-152, eng] **44-4182**
- Glacial periods**
- See also:** Ice age theory; Paleoclimatology; Pleistocene
- Glacial rivers**
- Equilibrium state of a glacier in China as calculated from its present characteristics.** Cao, M.S., [1989, p.89-94, eng] **44-176**
- Glacial basin flow for a power operation model.** Shen, Y.Y., et al, [1989, p.1078-1083, eng] **44-426**
- Sediment transport by meltwater streams.** Bezinge, A., et al, [1989, p.1-5, eng] **44-537**
- Possible radio-echo method of locating englacial and subglacial waterways.** Kennett, M.L., [1989, p.135-139, eng] **44-562**
- Changes of glacial hydrology at Austre Okstindbreen, Norway, 1976-87.** Theakstone, W.H., et al, [1989, p.252-256, eng] **44-584**
- Analysis of suspended sediment in a proglacial stream.** Fenn, C.R., et al, [1989, p.123-135, eng] **44-687**
- Hydrology of ice caps in volcanic regions.** Björnsson, H., [1988, 139p., eng] **44-1319**
- Volume of glacial runoff in the Balkhash-Alakul' basin.** Tokmagambetov, G.A., et al, [1989, p.47-68, rus] **44-1388**
- Glacial river discharge and salinity of bay in Spitsbergen.** Choinski, A., [1989, p.457-464, eng] **44-3063**
- Water chemistry of glacial river in Spitsbergen.** Stankowska, A., [1989, p.465-473, eng] **44-3064**
- Glaciation**
- Northeast glacial aquifers.** Randall, A.D., ed, [1988, 156p., eng] **44-2**
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- Geomorphology of the Pleistocene glaciation, Sichuan Province.** Yi, C.L., [1989, p.6-81, chij] **44-653**
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- Contributions to the early Holocene deglaciation history in Greenland.** Scholz, H., et al, [1989, p.22-41, eng] **44-1001**
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- Glaciations in the east European region of the USSR.** Velichko, A.A., et al, [1989, p.137-146, rus] **44-1916**
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- Correlation and reconstruction of Pleistocene Baltic region glaciations.** Galgalas, A.I., et al, [1989, p.154-160, rus] **44-1918**
- Some results of the correlation of Byelorussian Pleistocene glaciations.** Astapova, S.D., et al, [1989, p.160-166, rus] **44-1919**
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- Deglaciation in the District of Mackenzie, Northwest Territories.** McMartin, I., et al, [1990, p.55-66, eng] **44-4492**
- See also:** Alpine glaciation
- Glacier ablation**
- Variations of and runoff from glaciers in China.** Wang, Z.T., [1989, p.45-52, eng] **44-171**
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- Hydrology of the Biafo Glacier, Karakoram range.** Himalaya Mts. Hewitt, K., et al, [1989, p.103-108, eng] **44-556**
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- Sea level change due to ice wastage.** Meier, M., [1989, 5p., eng] **44-993**
- Present climate and glaciation of western Montana.** U.S.A. Locke, W.W., III, [1989, p.234-244, eng] **44-1264**
- Dynamics of the Nizkomorennyy rock glacier in a 35-year period.** Cherkasov, P.A., [1989, p.180-216, rus] **44-1397**
- Ablation as signal of climate change in Greenland.** Braithwaite, R.J., et al, [1989, p.253-259, eng] **44-1553**
- Topographic change of the Meighen Ice Cap.** Haythornthwaite, T.W., [1986, 102p., eng] **44-2954**
- Marginal zone of Hörbybreen Glacier in Spitsbergen.** Karczewski, A., [1989, p.371-377, eng] **44-3057**
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- Albedo of glacier in Tianshan Mountains during summer ablation.** Bai, Z.Y., et al, [1989, p.311-324, chij] **44-3609**
- Comparison of melt energy computations and ablatometer measurements on melting ice and snow.** Munro, D.S., [1990, p.153-162, eng] **44-4048**
- Glacier-climate studies 1987-1988 at Qamanarsrup sermia, West Greenland.** Braithwaite, R.J., [1989, p.56-58, eng] **44-4123**
- Ablation at the margin of the Greenland ice sheet.** Braithwaite, R.J., et al, [1990, p.20-22, eng] **44-4154**
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- Accumulation measurements on a glacier in Greenland.** Braithwaite, R.J., et al, [1989, p.63-66, eng] **44-4125**
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- Studies of Fridtjof Glacier in Spitsbergen in 1988.** Glazovskii, A.F., et al, [1989, p.148-153, rus] **44-352**
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- Basal ice formation and deformation: a review.** Hubbard, B., et al, [1989, p.529-558, eng] **44-2094**
- Glacier's bottom conditions, rheology, and stationary ice cover flow.** Larina, T.B., [1989, p.73-79, rus] **44-3496**
- Ice-push bedrock and its syngenetic till at Pont-Rouge, Québec.** Schroeder, J., et al, [1990, p.33-42, fre] **44-3531**
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- See also:** Glacial deposits
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- Transit-Doppler measurements of the Filchner Ice Shelf motion in 1984. Ellmer, W., et al, (1987, p.399-410, ger) 44-3084
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- Correlating marginal ice zones, lake shore formations, and river terraces. Raukas, A.V., et al, (1989, p.208-217, rus) 44-2051
- Glaciers. Dolgushin, L.D., et al, (1989, 447p., rus) 44-2927
- Glacial history of the Ross Sea region based on DSDP Leg 28 Sites 272 and 273. Savage, M.L., (1982, 187p., eng) 44-3184
- Glacier formation and snow line in China. Shi, Y.F., et al, (1989, p.11-28, chi) 44-3882
- Ice formations of glaciers in China. Xie, Z.C., et al, (1989, p.55-68, chi) 44-3884
- Eurasian ice sheet dynamics resulting from atmospheric CO2 variations. Lindstrom, D.R., (1990, p.207-227, eng) 44-4459
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- Carbonate deposits and sea ice advance, Ross Sea. Lawrence, M.J.F., et al, (1989, p.267-278, eng) 44-1110
- Hydrology of ice caps in volcanic regions. Björnsson, H., (1988, 139p., eng) 44-1319
- Water reserves in Kazakhstan glaciers and prospects for their use. Tokmagambetov, G.A., et al, (1989, p.5-17, rus) 44-1385
- Snow freezes moments in time. Koerner, R.M., et al, (1988, p.1-5, eng) 44-1534
- Surface roughness and bulk heat transfer on a glacier: comparison with eddy correlation. Munro, D.S., (1989, p.343-348, eng) 44-1895
- Glacial meltwater inflow into the Gulf of Mexico. Kvasov, D.D., (1989, p.28-33, rus) 44-1912
- Changes in the glacier cover of Severnaya Zemlya in the twentieth century. Govorukha, L.S., et al, (1987, p.300-305, eng) 44-2055
- Basal ice formation and deformation: a review. Hubbard, B., et al, (1989, p.529-558, eng) 44-2094
- Seismic telemetry network at Showa Station. Akamatsu, J., et al, (1989, p.1-12, eng) 44-2388
- Electromagnetic soundings on Campbell Glacier and Gondwana Station. Kuhnke, F.K., et al, (1989, p.455-481, eng) 44-3053
- Test of Newton's inverse-square law in the Greenland ice cap. Ander, M.E., et al, (1989, p.985-988, eng) 44-3083
- Ice reserves and main features of the current glaciation of Tien Shan. Vilesov, E.N., et al, (1989, p.117-130, rus) 44-3240
- Estimates for temperature of a piece of cold ice. Payne, L.E., et al, (1990, p.443-452, eng) 44-3276
- Airfields on antarctic glacier ice. Mellor, M., et al, (1989, 97p., eng) 44-3383
- Melt-out tills at the margins of stagnant glaciers. Paul, M.A., et al, (1990, p.51-69, eng) 44-3512
- Dominion Range ice core characteristics, Antarctica. Mayewski, P.A., et al, (1990, p.11-16, eng) 44-3716
- Icequakes on Ekström Ice Shelf near Atka Bay, Antarctica. Von der Osten-Woldenburg, H., (1990, p.31-36, eng) 44-3718
- Ice formations of glaciers in China. Xie, Z.C., et al, (1989, p.55-68, chi) 44-3884
- Temperature of glaciers in China. Huang, M.H., (1989, p.105-121, chi) 44-3887
- Geochemistry of glaciers in China. Wang, P., (1989, p.122-137, chi) 44-3888
- Chemobyl fallout in Greenland ice. Dibb, J.E., (1990, p.51-54, eng) 44-4161
- Glaciochemical survey of the Summit region, Greenland. Mayewski, P.A., et al, (1990, p.186-190, eng) 44-4190
- Antarctica: past and future glaciations. Miagkov, S.M., (1989, 159p., rus) 44-4337
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- Glacial basin flow for a power operation model. Shen, Y.Y., et al, (1989, p.1078-1083, eng) 44-426
- Glacier-hydrological conditions on the Inland Ice. Thomsen, H.H., et al, (1988, 1 fold. map and text, eng) 44-487
- Runoff from the Greenland ice sheet and hydro-electric power. Braithwaite, R.J., et al, (1989, p.12-15, eng) 44-539
- Past and forecast fluctuations of Glacier Blanc (French Alps). Letréguilly, A., et al, (1989, p.159-163, eng) 44-566
- Forty years of mass-balance observations on Glacier de Sarennes, French Alps. Valla, F., (1989, p.269-272, eng) 44-588
- Ice loss in the ablation area of a Himalayan glacier. Young, G.J., et al, (1989, p.289-293, eng) 44-592
- Mass balance of Sforzellina Glacier in Italian Alps. Catasta, G., et al, (1988, p.25-30, ita) 44-747
- Glacier mass balance in Terra Nova Bay, Antarctica. Zanon, G., (1988, p.56-58, ita) 44-748
- Giant icebergs in West Antarctica. Losev, K.S., (1989, p.72-75, eng) 44-1005
- Present climate and glaciation of western Montana, U.S.A. Locke, W.W., III, (1989, p.234-244, eng) 44-1264
- Climatic change in the Colorado Rocky Mountains. Leonard, E.M., (1989, p.245-255, eng) 44-1265
- Glaciers, snow cover, and avalanches in the mountains of Kazakhstan. Gorbunov, A.P., ed, (1989, 224p., rus) 44-1384
- Mass balance of the Korzhenevskii glacier. Fedulov, I.I.A., et al, (1989, p.38-47, rus) 44-1387
- Liquid runoff from the Tuyuksu basin in Zailiyskiy Alatau for 1964-1984. Makarevich, K.G., (1989, p.68-79, rus) 44-1389
- Lichen weathering as mass balance change indicator for an Alpine glacier. Mahaney, W.C., (1987, p.411-418, eng) 44-1453
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- Surface velocity variations of the lower part of Columbia Glacier. Rasmussen, L.A., (1989, 52p., eng) 44-1796
- Ice flow and mass changes in Lewis Glacier, East Africa. Hastenrath, S., (1989, p.325-332, eng) 44-1893
- Time-scale for adjustment of glaciers to changes in mass balance. Jóhannesson, T., et al, (1989, p.355-369, eng) 44-1897
- Mass-balance gradients and climatic change. Oerlemans, J., et al, (1989, p.399-405, eng) 44-1902
- Changes in the glacier cover of Severnaya Zemlya in the twentieth century. Govorukha, L.S., et al, (1987, p.300-305, eng) 44-2055
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- Mass balance studies of the Midtluugla Glacier, Eastern Greenland. Hasholt, B., (1988, p.8-85, eng) 44-2580
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- Glaciers. Dolgushin, L.D., et al, (1989, 447p., rus) 44-2927
- Variability of glacier mass balances in western North America. Walters, R.A., et al, (1989, p.365-374, eng) 44-2942
- Topographic change of the Meighen Ice Cap. Haythornthwaite, T.W., (1986, 102p., eng) 44-2954

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Glacier formation

- Moraines—source of glaciological information. Kotliakov, V.M., ed, (1989, 236p., rus) 44-36
- Arctic glaciers. Koriakin, V.S., (1988, 157p., rus) 44-194
- Boundary of the last ice sheet in the lower Pechora basin. Gualiser, B.I., et al, (1985, p.97-107, rus) 44-482

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[1989, p.299-319, eng]
- Ice reserves and main features of the current glaciation of Tien Shan. Vilesov, E.N., et al. [1989, p.117-130, rus] 44-3240
- Iceberg outflow and glaciation mass balance on King George I. Gonorukha, L.S., [1989, p.92-96, rus] 44-3498
- Mass balance of glaciers in China. Xie, Z.C., et al. [1989, p.69-87, chi] 44-3885
- Accumulation measurements on a glacier in Greenland. Braithwaite, R.J., et al. [1989, p.63-66, eng] 44-4125
- Annual surface temperature and mass balance. Fortuin, J.P.F., et al. [1990, p.78-84, eng] 44-4166
- Long-term glacier mass-balance investigations in Svalbard, 1950-88. Hagen, J.O., et al. [1990, p.102-106, eng] 44-4171
- Glaciers and climate in Svalbard. Lefauconnier, B., et al. [1990, p.148-152, eng] 44-4182
- Air temperature and precipitation at Wolverine Glacier, Alaska. Mayo, L.R., et al. [1990, p.191-194, eng] 44-4191
- Modeling mass-balance changes during a glaciation cycle. Pelto, M.S., et al. [1990, p.238-241, eng] 44-4201
- Effect of area distribution with altitude on glacier mass balance. Tangborn, W.V., et al. [1990, p.278-281, eng] 44-4210
- Glacier melting**
- Organic carbon accumulation in soils near Burroughs Glacier. James, L.A., [1988, p.50-70, eng] 44-49
- Younger Dryas-Preboreal moraines and deglaciation in southwestern Värmland, Sweden. Lundqvist, J., [1988, p.301-316, eng] 44-80
- Deglaciation pattern indicated by the ice-margin formations in Northern Karelia, eastern Finland. Eronen, M., et al. [1988, p.317-327, eng] 44-81
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- Stochastic processes of melt runoff from Heigou Glacier, China. Hu, X.G., [1990, p.61-67, eng] 44-173
- Subglacial meltwater discharge in a tidewater glacier environment. Pfirman, S.L., et al. [1989, p.265-281, eng] 44-218
- Exothermic model of percolation zone in a glacier. Cai, B.L., et al. [1989, p.312-314, eng] 44-289
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- Trace metals in meltwater from the Rhône glacier. Lum-Shue-Chan, K., [1981, p.286-295, eng] 44-418
- Sediment transport by meltwater streams. Dezinghe, A., et al. [1989, p.1-5, eng] 44-537
- Agricultural use of melt water in Hoper settlement, Pakistan. Butz, D., [1989, p.35-39, eng] 44-545
- Planned reservoir and flooding the tongue of a glacier. Funk, M., et al. [1989, p.76-81, eng] 44-552
- Risks from glacier hazards in the Swiss Alps. Haeblerli, W., et al. [1989, p.96-102, eng] 44-555
- Damage of glacier-related landslides, Karakoram, Himalaya. MacDonald, K.I., [1989, p.185-188, eng] 44-571
- Glacier surveys for planning hydro-electric power, West Greenland. Thomsen, H.H., et al. [1989, p.257-261, eng] 44-585
- Pro-glacial lake in the French Alps. Vallon, M., [1989, p.273-278, eng] 44-589
- Dynamics of Mizuho Plateau ice sheet. Nishio, F., et al. [1989, p.97-104, eng] 44-1806
- Ice-snow meltwater debris flow in the Dongru Longba, China. Lu, R.R., et al. [1989, p.148-160, chi] 44-2409
- Meltwater runoff model of Heigou Glacier No.8, Bogda Mt. Hu, X.G., et al. [1989, p.279-286, chi] 44-2423
- Glaciers today—sea tomorrow. Sharp, M., [1989, p.28-31, eng] 44-3078
- Glacier reaction to water level increase of glacial lake. Hooke, R.L., et al. [1989, p.113-116, eng] 44-3095
- Melt-out tills at the margins of stagnant glaciers. Paul, M.A., et al. [1990, p.51-69, eng] 44-3512
- Thermal response of a small ice cap to climatic forcing. Hanson, B., [1990, p.49-56, eng] 44-3721
- Subglacial water pressures and the shape of subglacial conduits. Hooke, R.L., et al. [1990, p.67-71, eng] 44-3723
- Jakobshavn Isbrae, West Greenland: seasonal variations in velocity or lack thereof. Echelmeyer, K., et al. [1990, p.82-88, eng] 44-3726
- Seasonal runoff forecast for Kangerluarsunguaq near Nuuk/Godthåb, West Greenland. Braithwaite, R.J., [1990, 17p., eng] 44-3805
- Meltwater runoff into rivers from glaciers in China. Yang, Z.N., [1989, p.187-204, chi] 44-3891
- Debris flows and lake bursts from glaciers in China. Deng, Y.X., [1989, p.205-220, chi] 44-3892
- Glacier and permafrost signals of 20th-century warming. Haeblerli, W., [1990, p.99-101, eng] 44-4170
- Glacier recession and lake shrinkage in Central Asia. Shi, Y.F., et al. [1990, p.261-265, eng] 44-4206
- Quaternary deglaciation and reforestation of Glacier National Park. Carrara, P.E., [1989, 64p., eng] 44-4257
- Late Quaternary development of the Champlain Sea basin. Gadd, N.R., ed. [1988, 312p., eng] 44-4449
- Basin, the ice, the Champlain Sea. Gadd, N.R., [1988, p.15-24, eng] 44-4451
- History of the northwestern arm of the Champlain Sea. Barnett, P.J., [1988, p.25-36, eng] 44-4452
- Ice-proximal deposits of the Champlain Sea at South Gloucester, near Ottawa, Canada. Rust, B.R., [1988, p.37-45, eng] 44-4453
- Champlain Sea subwash fan at St. Lazare, Quebec. Burbidge, G.H., et al. [1988, p.47-61, eng] 44-4454
- Glaciomarine fan deposition in the Champlain Sea. Sharpe, D.R., [1988, p.63-72, eng] 44-4455
- Lithofacies relationships in a freshwater-marine transition of the Champlain Sea. Gadd, N.R., [1988, p.83-90, eng] 44-4456
- Glacial marine facies of the late Wisconsinan Champlain Sea (southern Quebec). Prichonnet, G., [1988, p.91-105, eng] 44-4457
- Lake Agassiz and its contribution to flow through the Ottawa-St. Lawrence system. Teller, J.T., [1988, p.281-289, eng] 44-4458
- Glacier movement**
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- Glacier oscillation**
- Deglaciation pattern indicated by the ice-margin formations in Northern Karelia, eastern Finland. Eronen, M., et al. [1988, p.317-327, eng] 44-81
- Glaciation and deglaciation of Forlandsundet area, Spitsbergen. Forman, S.L., [1989, p.51-60, eng] 44-84
- Sensitivity of a small icecap to climatic fluctuations. Rosqvist, G., et al. [1989, p.99-103, eng] 44-111
- Snow cover and glacier variations. Colbeck, S.C., ed. [1989, 111p., eng] 44-165
- Variations of and runoff from glaciers in China. Wang, Z.T., [1989, p.45-52, eng] 44-171
- Glacial changes in the Tien Shan Mts. Serebrianniy, L.R., et al. [1989, p.81-87, eng] 44-175
- Equilibrium state of a glacier in China as calculated from its present characteristics. Cao, M.S., [1989, p.89-94, eng] 44-176
- Arctic glaciers. Koriakin, V.S., [1988, 157p., rus] 44-194
- Influences of climatic fluctuations and changes in glacierised area on runoff from alpine basins. Collins, D.N., [1988, p.77-86, eng] 44-237
- Recent change and trend prediction of glaciers in the Qilian Mountains. Liu, C.H., et al. [1989, p.145-149, eng] 44-290
- Instability and self-regulation of glacial areas. Mazo, V.L., [1989, p.3-25, rus] 44-331
- Spruce annual rings and glacier oscillation, Terskey Ala-Tau. Solomina, O.N., et al. [1989, p.103-110, rus] 44-343
- Bedrock geology of the Koyukuk basin, Brooks Range, and Arctic Slope. Mull, C.G., ed. [1989, 2 vols. + append., eng] 44-427
- Glacial geology of the Brooks Range. Hamilton, T.D., [1989, p.23-26, eng] 44-428
- Road log from Yukon crossing (mile 56) to south fork Koyukuk River (mile 156.2). Patton, W.W., Jr., et al. [1989, p.59-73, eng] 44-429
- Recent glacial evolution in Valle Aurina (Pusterer Alps). Della Ventura, A., et al. [1986, p.39-48, ita] 44-520
- Ventina glacier (Val Malenco, Central Alps). Smiraglia, C., [1986, p.49-55, ita] 44-521
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- Glacier features of Qomolangma Mt. using remote sensing. Cao, M.S., et al. [1988, p.15-20, chi] 44-630
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- Holocene glaciation and climatic change Spitsbergen, Svalbard. Werner, A., [1989, 325p., eng] 44-969
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- Late Holocene fluctuations of the fiord glacier system in Icy Bay, Alaska, U.S.A. Porter, S.C., [1989, p.364-379, eng] 44-2009
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- Massbalance studies of the Midtluagkat Glacier, Eastern Greenland. Hasholt, B., [1988, p.82-85, eng] 44-2580
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- Glaciers today—sea tomorrow. Sharp, M., [1989, p.28-31, eng] 44-3078
- Recent glacier development and climatic changes in the Tianshan Mountains in China. Hu, R.J., et al. [1989, p.141-148, eng] 44-3166
- Study on jökulhlaups (glacial outburst floods) of the Yarkant River. Chen, Y.N., et al. [1989, p.169-177, eng] 44-3167
- Last glaciation of Marvin Peninsula, northern Ellesmere Island, High Arctic, Canada. Lemmen, D.S., [1989, p.2578-2590, eng] 44-3342
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- Recent fluctuation of glaciers in China. Ren, B.H., [1989, p.171-186, chi] 44-3890
- Antarctic ice sheet during the last glacial-interglacial cycle. Huybrechts, P., [1990, p.115-119, eng] 44-4174
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- Late ice sheet Wisconsin advance and retreat pattern. Lowell, T.V., et al. [1990, p.172-175, eng] 44-4187
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- Twentieth-century glacier change at Svartsen, Norway. Theakstone, W.H., [1990, p.283-287, eng] 44-4211
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- Contemporary Tien Shan glacier oscillations in climate diagnostics of recent years. Denisova, T.I.A., et al. [1988, p.128-135, rus] 44-4319
- Eurasian ice sheet dynamics resulting from atmospheric CO₂ variations. Lindstrom, D.R., [1990, p.207-227, eng] 44-4459
- Glacier surfaces**
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- Surface movement of a rock glacier, Tian Shan, China. Zhu, C., [1989, p.82-88, chi] 44-654
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- Proxy climate record from glaciochemical study in Victoria Land. Mayewski, P.A., et al. [1988, p.68-69, eng] 44-1699

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- Surface velocity variations of the lower part of Columbia Glacier. Rasmussen, L.A., [1987, 52p., eng.] **44-1796**
- Satellite radar altimetry over ice, Vol. I. Greenland. Zwally, H.J., et al. [1990, 145p., eng.] **44-1889**
- Variations of Italian glaciers 1985-1986. Zanoni, G., comp. [1987, p.229-276, ita.] **44-2097**
- Mass balance studies of the Mittluagkat Glacier, Eastern Greenland. Hasholt, B., [1988, p.82-85, eng.] **44-2580**
- New map of the Mittluagkat glacier—a preliminary report. Hasholt, B., [1987, p.19-21, eng.] **44-2584**
- Cold surface layer on Storglaciären. Holmlund, P., et al. [1989, p.241-244, eng.] **44-2624**
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- Comparison of *in situ* and satellite-derived reflectances of Forbindele Glacier, Greenland. Hall, D.K., et al. [1990, p.493-504, eng.] **44-3350**
- Albedo of glacier in Tianshan Mountains during summer ablation. Bai, Z.Y., et al. [1989, p.311-324, chi.] **44-3609**
- Are backscatter features from the Malaspina Glacier surface expressions of crevasse morphology. Molnia, B.F., et al. [1989, p.701-710, eng.] **44-3714**
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- Determination of the surface and bed topography in central Greenland. Hodge, S.M., et al. [1990, p.17-30, eng.] **44-3717**
- Remote-sensing studies of Kvitvöykjulen, an ice cap on Kvitoya, north-east Svalbard. Bamber, J.L., et al. [1990, p.75-81, eng.] **44-3725**
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- Glacier surveys**
- Advance of Hubbard Glacier and 1986 outburst of Russell Fiord, Alaska, U.S.A. Mayo, L.R., [1989, p.189-194, eng.] **44-572**
- Is the antarctic ice sheet disintegrating. Kamb, B., [1990, p.4-13, eng.] **44-3751**
- Glacier surveys**
- World glacier inventory, status 1988. Haeblerli, W., ed. [1989, Var. p., eng.] **44-74**
- Glacier classification in China. Lai, Z.M., et al. [1989, p.103-111, eng.] **44-178**
- Arctic glaciers. Koriakin, V.S., [1988, 157p., rus.] **44-194**
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- Glaciers and glaciology of Alaska. Krimmel, R.M., et al. [1989, 61p., eng.] **44-433**
- Report on the 1984 glaciological survey [1986, p.3-38, ita.] **44-519**
- Report on the 1985 glaciological survey [1986, p.81-136, ita.] **44-522**
- Symposium on Snow and Glacier Research, 1988. [1989, 303p., eng.] **44-536**
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- Strandline Glacier, Terra Nova Bay, Antarctica. Baroni, C., et al. [1987, p.337-350, ita.] **44-2099**
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- See also: Ice cover thickness
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- See also: Glacier oscillation
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- See also: Dictionaries

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Ice budget of the Greenland Sea. Moritz, R.E., (1988, 189p., eng) 44-2805
Time-lapse motion study of sea ice in the Greenland Sea. Gloersen, P., (1990, p.177-179, eng) 44-3845
Preliminary testing of a sea ice model for the Greenland Sea. Preller, R.H., et al. (1990, p.259-277, eng) 44-3863
Laser measurement of chlorophyll-in-water in a marginal ice zone. Hoge, F.E., et al. (1989, p.67-76, eng) 44-3904
Thermohaline structure, water circulation and deep winter convection in the Greenland Sea stationary gyre. Alekseev, G.V., et al. (1990, p.87-88, eng) 44-4071
- Ground effect machines**
See also: Air cushion vehicles
- Ground freezing**
Patterned ground. Krantz, W.B., et al. (1988, p.68-76, eng) 44-1764
See also: Soil freezing
- Ground ice**
Geological and geotechnical conditions of the Beaufort Sea coastal zone, arctic Canada. Kurfurst, T.J., et al. (1989, p.121-129, eng) 44-46
Ice beds in ice-marine sediments as a product of cryogenic diagenesis. Danilov, I.D., (1989, p.1201-1203, rus) 44-163
Ground ice of Spitsbergen. Vtiurin, B.I., (1989, p.69-75, rus) 44-338
Chemical interaction in the system "water-ice-rock". Ivanov, A.V., (1989, p.75-80, rus) 44-339
Paragenesis of nalds and ground ice. Alekseev, V.R., (1989, p.81-86, rus) 44-340
Loss of water from Phobos. Fanale, F.P., et al. (1989, p.287-290, eng) 44-387
Role of gas hydrates in the cryolithogenesis of marine deposits. Romanovskii, N.N., et al. (1988, p.1-12, eng) 44-593
Infrared remote sensing in permafrost. Liang, F.X., et al. (1988, p.106-119, chi) 44-642
Tritium analysis of ground ice in permafrost. Wang, S.L., et al. (1989, p.53-59, chi) 44-650
Physico-chemical mechanics of frozen rocks. Savilev, B.A., (1989, 214p., rus) 44-760
Mathematical model of frost heave in granular materials. Piper, D., et al. (1989, p.569-570, eng) 44-939
Influence of freeze-thaw cycles on clay structures. Schababerle, R., et al. (1989, p.573-575, eng) 44-941
Ice sandwich experiments and the thermodynamic-rheological model of frost heave. Williams, P.J., et al. (1989, p.579-580, eng) 44-943
Ground ice on Svalbard. Vtiurin, B.I., (1989, p.1-8, eng) 44-999
Volume changes accompanying creep of frozen soil. Knutsson, S., (1988, p.477-481, eng) 44-1165
Compressibility of sand-ice system. Youssef, H., (1988, p.497-506, eng) 44-1167
Landforms and ground ice as evidence of the source of H₂O in permafrost. Harris, S.A., (1989, p.367-390, eng) 44-1262
Acoustic control of ground ice using beam pattern emission. Baukov, I.U.N., (1988, p.8-13, rus) 44-1343
Water on Mars. Carr, M.H., (1987, p.374-375, eng) 44-1414
Some models related to fossil ice lenses on Mars. Costard, F., (1987, p.243-251, fre) 44-1452

Ground ice (cont.)

- Inventory of water on Mars. Carr, M.H., [1988, p.71-80, eng] 44-1678
- Structural inhomogeneities of the Martian cryolithosphere. Kuz'min, R.O., et al, [1989, p.121-133, eng] 44-1679
- Early environment and its evolution on Mars: implications for life. McKay, C.P., et al, [1989, p.189-214, eng] 44-1768
- Seasonal thawing of soils, with underlying ice-saturated ground. Gavril'ev, P.P., et al, [1988, p.41-48, rus] 44-1963
- Changes in structure and properties of frozen soils. Zykov, I.U.D., et al, [1985, p.13-20, rus] 44-2365
- Seasonal active layer in the basin of Huola River, China. Wang, J.C., et al, [1989, p.203-214, chj] 44-2415
- Former glaciation and permafrost in Asia. Danilov, I.D., et al, [1989, p.92-103, eng] 44-2438
- Natural cairns on rock glaciers as an indication of a solid ice core. Humlum, O., [1988, p.78-82, eng] 44-2579
- Heat and water flux in a diurnally freezing and thawing soil. Pikul, J.L., Jr., et al, [1990, p.113-119, eng] 44-2973
- Infiltration into a seasonally frozen clay soil. Thunholm, B., et al, [1990, p.156-160, eng] 44-2978
- Solute redistribution during soil freezing. Van Loon, W.K.P., et al, [1990, p.186-194, eng] 44-2982
- Measurements of dielectric properties of frozen soils. Araki, T., et al, [1989, p.27-40, jpn] 44-3124
- Ground ice in the deposits on slopes of Tien Shan and Pamirs. Ermolin, E.D., [1989, p.3-13, rus] 44-3229
- Perelotoks in the low, isolated hills of Kazakhstan. Gorbunov, A.P., [1989, p.40-48, rus] 44-3233
- Fluvial outbursts and cryokarstic processes on Mars and in Siberia. Costard, F., [1990, p.97-104, fre] 44-3534
- Acoustic properties of icy soils and ice. Zykov, I.U.D., et al, [1989, 133p., rus] 44-3550
- Compaction and internal structure of Mimas. Eluszkiewicz, J., [1990, p.215-225, eng] 44-3599
- Ice wedge characteristics of periglacial environments of Canada. Hyatt, J.A., [1990, p.17-26, eng] 44-3638
- Ground ice, Herschel I., Yukon Territory. Pollard, W.H., [1990, p.23-30, eng] 44-3639
- Theoretical modeling of massive ice beds. Konrad, J.M., [1990, p.31-35, eng] 44-3640
- Transport of hygroscopic particles in perennial ground ice. Perfect, E., et al, [1990, p.37-42, eng] 44-3641
- Microanalysis of sorted circles, Colorado Front Range. Harris, C., [1990, p.89-94, eng] 44-3648
- Peat and mineral cored peat, Schefferville, Quebec. Cummings, C.E., et al, [1990, p.95-102, eng] 44-3649
- Water and ice content in the active layer. Fortier, R., et al, [1990, p.263-269, fre] 44-3671
- Granular sediments in ground ice, Beaufort Sea coast. Gowan, R.J., et al, [1990, p.283-290, eng] 44-3673
- Buried snowbank ice in the central and northern Yukon Territory. Pollard, W.H., [1989, p.292-297, eng] 44-4030
- Ground ice. Danilov, I.D., [1990, 140p., rus] 44-4127
- Moisture transfer and ice accumulation in dispersed soils. [Anitakil, P.A., [1990, p.44-50, rus] 44-4533
- Using magnetic and gravimetric methods in studying underground ice. Matveev, V.S., et al, [1990, p.85-90, rus] 44-4543
- See *also*: Ice lenses; Ice veins; Ice wedges
- Ground temperature**
- See *also*: Soil temperature
- Ground thawing**
- Analysis and estimation of runoff in the Binggou Basin of the Qilian Mountains. Yang, Z.N., et al, [1989, p.39-44, eng] 44-170
- Compaction characteristics in thawing sandy soil under dynamic loads. Inozemtsev, V.K., [1985, p.114-119, rus] 44-208
- Plasma thawing of frozen soils. Zadvornov, G.A., et al, [1987, p.132-135, eng] 44-221
- Heat and moisture transport in thawing of frozen soil. [Anitakil, P.A., [1987, p.136-144, eng] 44-302
- Plasma method of thawing frozen ground. Zadvornov, G.A., et al, [1987, p.112-115, rus] 44-319
- Retrospective thaw slump near Mayo, Yukon Territory. Burn, C.R., et al, [1989, p.31-40, eng] 44-489
- Mapping seasonal soil freezing and thawing within the USSR. Tumel', N.V., et al, [1989, p.30-37, rus] 44-619
- Satellite monitoring of soil freeze-thaw boundary. Ulaby, F.T., et al, [1988, 7p., eng] 44-892
- Temperature monitoring of frozen ground during construction of Gascoigne Wood drifts, Selby Mine. Willa, A.J., et al, [1989, p.333-340, eng] 44-930
- Acoustic measurements on soaked soils during thaw and unfrozen water content determination. Deschêtres, M.H., et al, [1989, p.551-553, eng] 44-932
- Freeze-thaw-induced variability of soil shear strength. Kok, H., [1989, 200p., eng] 44-1016
- Interaction of insulated pipe with frozen soil. [Anitakil, P.A., [1989, p.74-80, eng] 44-1088
- Experimental determination of pore pressure development in a thawing soil. Axelsson, K., et al, [1988, p.489-495, eng] 44-1164
- Study of temperature fields in thawing soils. Bronfenbrener, L.E., et al, [1989, p.59-65, rus] 44-1256
- Deformation characteristics of thawing permafrost soils. Ponomarev, V.D., et al, [1989, p.10-13, eng] 44-1258
- Thermomechanical pressure in surface melting: motivation for frost heave. Dash, J.G., [1989, p.1591-1593, eng] 44-1373
- Heating and freezing excavated material through a metallic plate. Dugartayrenov, A.V., et al, [1988, p.31-36, rus] 44-1380
- Drying cut peat in a frozen deposit. Gamaiunov, N.I., et al, [1989, p.19-24, rus] 44-1401
- Vehicle mobility on thawing soils. Shoop, S.A., [1989, 16p., eng] 44-1481
- New Alaskan road beats drainage problems. Groves, J., [1989, p.88-89, eng] 44-1513
- Effect of percolation component on heat transfer in thawing soils. Zviagin, V.V., [1987, p.305-309, eng] 44-1516
- Self-similar solution of the thawing soil problem. Maksimov, A.M., et al, [1989, p.914-919, eng] 44-1518
- Interrelations of forest and swamp in a taiga zone. Glebov, F.Z., [1988, 182p., rus] 44-1719
- Hydrothermal problems of frozen soils. Savvinov, D.D., ed, [1988, 126p., rus] 44-1958
- Seasonal thawing of soils, with underlying ice-saturated ground. Gavril'ev, P.P., et al, [1988, p.41-48, rus] 44-1963
- Heating frozen soil. Filippov, P.I., [1988, p.121-126, rus] 44-1970
- Thermocompressive method of testing frozen soils by thawing. Orzhikhovskii, I.U.R., [1989, p.46-52, rus] 44-2151
- Distintegration of frozen and thawed sandy and clayey soils. Shirman, V.G., et al, [1989, p.962-964, rus] 44-2248
- Snow cover, freezing and thawing of soil in pine forests. Korepanov, A.A., [1989, p.64-68, rus] 44-2352
- Heat and moisture transfer in the seasonal thawing of frozen soils. Permiakov, P.P., et al, [1989, p.828-832, eng] 44-2381
- Raised and unventilated pile foundation in permafrost. Li, Y.W., et al, [1989, p.167-171, chj] 44-2411
- Seasonal active layer in the basin of Huola River, China. Wang, J.C., et al, [1989, p.203-214, chj] 44-2415
- Methods of producing a map of the seasonal freezing and thawing of soils. Vostokova, A.V., et al, [1989, p.50-55, rus] 44-2523
- Thawing seasonally frozen soils using a low-temperature plasma. Zadvornov, G.A., et al, [1989, p.41-44, eng] 44-2575
- Brief and vigorous N₂O production by soil at spring thaw. Christensen, S., et al, [1990, p.1-4, eng] 44-2794
- Computer estimation of freeze-thaw depths. Braley, W.A., et al, [1989, 32p., eng] 44-2936
- Tillage and crop residue effects on soil frost depth. Rickerl, D.H., et al, [1990, p.31-35, eng] 44-2963
- Soil freezing and thawing simulation with the SHAW model. Flerchinger, G.N., et al, [1990, p.77-86, eng] 44-2969
- Simulating the freezing and thawing of arable land in Sweden. Lundin, L.C., [1990, p.87-98, eng] 44-2970
- Conservation applications impacted by soil freeze thaw. Formanek, G.E., et al, [1990, p.108-112, eng] 44-2972
- Heat and water flux in a diurnally freezing and thawing soil. Pikul, J.L., Jr., et al, [1990, p.113-119, eng] 44-2973
- Runoff and soil erosion from thawing soil. McCool, D.K., [1990, p.171-176, eng] 44-2980
- Effect of thaw depth on infiltration, runoff and sediment transport. Benoit, G.R., et al, [1990, p.224-230, eng] 44-2988
- Field and laboratory techniques for frozen and thawing soil. McCool, D.K., et al, [1990, p.271-278, eng] 44-2994
- Soil thaw as influenced by small grain residue color. Sharratt, B.S., et al, [1990, p.290-294, eng] 44-2997
- Causes of deformation of buildings on permafrost in railroad district of Vorkuta. Belotserkovskaya, G.V., et al, [1989, p.102-106, eng] 44-3003
- Soil freezing in the taiga zone of the European USSR. Rubtsov, M.V., et al, [1989, p.116-122, eng] 44-3252
- Cold regions engineering: climatic warming concerns for Alaska. Esch, D.C., et al, [1990, p.6-14, eng] 44-3385
- Consequences of climatic change for hydrology in permafrost zones. Woo, M.K., [1990, p.15-20, eng] 44-3386
- Potential responses of permafrost to climatic change. Smith, M., [1990, p.29-37, eng] 44-3388
- Effect of climatic warming on pile creep in permafrost. Nixon, J.F., [1990, p.67-73, eng] 44-3392
- Structural strength of frozen soils during thawing. Vodolazkin, V.M., et al, [1990, p.207-209, eng] 44-3417
- Settling and consolidation of a thawing clay silt at Kangigualujuaq. Leroueil, S., et al, [1990, p.309-316, fre] 44-3676
- Thaw settlement around a building on warm ice-rich permafrost. Hanna, A.J., et al, [1990, p.419-424, eng] 44-3690
- Hydraulic erosion resistance of thawing soil. Van Klaveren, R.W., et al, [1987, 29p., eng] 44-3931
- Numerical modelling of frost and thaw penetration. Sheng, D.C., [1990, 103p., eng] 44-4423
- Ground water**
- Northeast glacial aquifers. Randall, A.D., ed, [1988, 156p., eng] 44-2
- Groundwater flow effects in processes of soil freezing. Sluzalec, A., [1989, p.399-409, eng] 44-48
- Geocryological-hydrogeological studies of free water transfer zones. Piguzova, V.M., ed, [1989, 160p., rus] 44-142
- Water balance formation in intensive water transfer zones. Vsevolozhskii, V.A., et al, [1989, p.13-23, rus] 44-144
- Role of perennially frozen rock in the formation of ground water. Kuskovskii, V.S., et al, [1989, p.24-27, rus] 44-145
- Cryogenic transformation of ground water and surface rocks in coal deposits. Fotiev, S.M., et al, [1989, p.48-56, rus] 44-148
- Hydrogeological investigations of coal deposits in southern Yakutia. Nominkhanov, V.V., [1989, p.56-64, rus] 44-149
- Relationship between ground and river waters of the Ural naled belt. Oberman, N.G., [1989, p.64-73, rus] 44-150
- Annual temperature variation and the level of man-made cryopegs. Andreev, S.V., [1989, p.106-112, rus] 44-156
- Analysis and estimation of runoff in the Binggou Basin of the Qilian Mountains. Yang, Z.N., et al, [1989, p.39-44, eng] 44-170
- Resident time of meltwater in different zones of small basins. Bengtsson, L., [1988, p.131-136, eng] 44-242
- Heat-moisture transfer in thawing frozen ground. [Anitakil, P.A., [1987, p.116-122, rus] 44-320
- On the generation of stream runoff in till soils. Rodhe, A., [1989, p.1-8, eng] 44-375
- Predicting changes in thickness of seasonal freezing of rocks. Seregina, N.V., et al, [1988, p.70-75, eng] 44-470
- Physico-chemical mechanics of frozen rocks. Savel'ev, B.A., [1989, 214p., rus] 44-760
- National water summary 1984. [1985, 467p., eng] 44-1007
- Well casings for monitoring trace organics in ground water. Parker, L.V., et al, [1989, 29p., eng] 44-1223
- Leaching of metal pollutants from well casings. Hewitt, A.D., [1989, 11p., eng] 44-1482
- Reduced rise in sea level. Meier, M.F., [1990, p.115-116, eng] 44-1714
- Role of seawater freezing in the formation of subsurface brines. Herut, B., et al, [1990, p.13-21, eng] 44-1769
- Protection of groundwater from drilling waste. [1989, 93p., eng] 44-2113
- Infiltration of de-icing road salts in aquifers. Locat, J., et al, [1989, p.2186-2193, eng] 44-2274
- Water intake flow in unsaturated freezing soils. Gao, W.Y., et al, [1989, p.137-147, chj] 44-2408
- Heat storage by aquifers in cold regions. Ochifuji, K., et al, [1988, p.591-596, jpn] 44-2732
- Mixing of acid meltwater with groundwater in a forested basin in Finland. Bengtsson, L., et al, [1989, p.251-258, eng] 44-3039
- Naleds in the northern Ural. Oberman, N.G., [1989, p.67-75, rus] 44-3236
- Simulation of groundwater considering snowmelt. Watanabe, K., et al, [1987, p.501-506, jpn] 44-3518
- Surface changes in well casings exposed to organic pollutants. Taylor, S., et al, [1990, 14p., eng] 44-3755
- Influence of well casings on well water. Hewitt, A.D., et al, [1989, 9p., eng] 44-3761
- Influence of casing materials on trace-level chemicals in well water. Parker, L.V., et al, [1990, 11p., eng] 44-3774
- Recharge-discharge function of wetlands Pt.1. Siegel, D.I., [1988, p.427-434, eng] 44-3877
- Recharge-discharge function of wetlands Pt.2. Siegel, D.I., [1988, p.580-586, eng] 44-3878
- Diffusivity of a glacial-outwash aquifer by the floodwave-response technique. Reynolds, R.J., [1987, p.290-299, eng] 44-3879
- See *also*: Soil water; Subpermafrost ground water; Superpermafrost ground water; Water table
- Grounded ice**
- Dynamics of iceberg grounding and scouring. Hodgson, G.J., ed, [1988, 316p. + maps, eng] 44-229
- Construction and performance of the Kadluk 0-07 sprayed ice pad. Kemp, T.S., et al, [1988, p.551-564, eng] 44-1172
- Drilling on Cray Ice Rise, Antarctica. Bindaschadler, R.A., et al, [1988, p.60-62, eng] 44-1695
- Grounding**
- See *also*: Electrical grounding

Greeting

- Temperature monitoring of frozen ground during construction of Gascoigne Wood drifts, Selby Mine. Wills, A.J., et al, 1989, p.533-540, eng 44-930
- Curing and strength characteristics of cold setting Cement Fondu grout. Biggar, K.W., et al, 1990, p.349-356, eng 44-3681
- Sealing anchors in rock with Portland cement grout. Ballivy, G., et al, 1990, p.357-364, fre 44-3682

Growth

- Snow management increases alfalfa yields. Waddington, J., et al, 1989, p.134-137, eng 44-515
- Subice suction corer for sampling epontic ice algae. Welch, H.E., et al, 1988, p.562-568, eng 44-1863
- Changes to the climate and flora of Hopen Island during the last 110 years. Skye, E., 1989, p.323-332, eng 44-1934
- Differences in growth and nutrient use among arctic plant growth forms. Chapin, F.S., III, et al, 1989, p.73-80, eng 44-2586
- Lichen mortality due to late-lying snow: results of a transplant study. Benedict, J.B., 1990, p.81-89, eng 44-2663
- Response of mountain big sagebrush to induced snow accumulation. Sturges, D.L., 1989, p.1035-1041, eng 44-3169
- Biological instrumentation for underice studies in the Arctic. Herman, A.W., 1988, p.49-53, eng 44-3803
- Snow algae in upstate New York and Quebec Province. Hoham, R.W., et al, 1989, p.196-200, eng 44-4012
- Variability of snowcover as a factor in forest decline. Auclair, A.N.D., 1989, p.228-231, eng 44-4018
- Lichen growth rates for the northwest coast of Spitsbergen, Svalbard. Werner, A., 1990, p.129-140, eng 44-4046
- Adaptations in arctic plants. Wielgolaski, F.E., 1990, p.244-245, eng 44-4117

Hail

- Attenuation and scattering of radar waves of nonhomogeneous hail. Inuikhin, V.S., et al, 1989, p.53-59, rus 44-812
- Polarization characteristics of melting hail. Tolmachev, V.V., et al, 1989, p.65-70, rus 44-813
- Physical characteristics of hail and damage to agricultural crops. Tisov, M.I., et al, 1989, p.137-145, rus 44-821
- Cloud physics. Bettuganov, M.N., ed, 1989, 147p., rus 44-863
- Radar measurement of the kinetic energy of hail. Abshaev, M.T., et al, 1989, p.89-97, rus 44-872
- Hail processes developing in the Caucasus at night. Shul'man, N.G., et al, 1989, p.130-136, rus 44-877
- Atmospheric denitrification via falling ice particles. Wolfy, S.C., et al, 1990, p.449-452, eng 44-3426
- Frequency of thunderstorms and hail near an industrial city. Zabolotskaia, T.N., et al, 1989, p.55-59, rus 44-4231

Hail clouds

- Numerical simulation of microphysical processes in cumulonimbus Pt.2. Hu, Z.J., et al, 1989, p.185-199, eng 44-528
- Two-dimensional numerical hailcloud model. Xu, H.B., et al, 1989, p.200-211, eng 44-529
- Hail experiment. Fedchenko, L.M., ed, 1989, 159p., rus 44-806
- Numerical analysis of a hail cloud. Ashabokov, B.A., et al, 1989, p.19-24, rus 44-808
- Calculating radar reflectivity of hail clouds during maximum development. Zhakamikhov, Kh.M., et al, 1989, p.44-53, rus 44-811
- Typical paths of supercell hail clouds in the northern Caucasus. Gazeava, Z.A., et al, 1989, p.99-109, rus 44-816
- Determining the duration of the hail hazard condition of clouds. Adzhiev, A.Kh., 1989, p.109-113, rus 44-817
- Optimal thermodynamic conditions in the development of hail processes. Goral, G.G., 1989, p.114-124, rus 44-818
- Kinematics of upper air cyclones and the intensity of hail processes. Goral, G.G., et al, 1989, p.124-132, rus 44-819
- Analyzing the physical effect of actions of hail processes. Ashabokov, B.A., et al, 1989, p.133-137, rus 44-820
- Cloud physics. Bettuganov, M.N., ed, 1989, 147p., rus 44-863
- Electrical discharges in the electrostatic field of thunder and hail clouds. Bettuganov, M.N., 1989, p.7-13, rus 44-864
- Scattering and attenuation of radio waves in hail clouds. Abshaev, M.T., et al, 1989, p.76-81, rus 44-870
- Effective control of hail processes. Abshaev, M.T., 1989, p.81-89, rus 44-871
- Measuring the isotope composition of hydrogen in hailstones. Tisov, M.I., et al, 1989, p.121-130, rus 44-876
- Hail processes developing in the Caucasus at night. Shul'man, N.G., et al, 1989, p.130-136, rus 44-877
- Simulation of microwave brightness temperatures of an evolving hailstorm at SSM/I frequencies. Mugnai, A., et al, 1990, p.2-13, eng 44-2758

Differential reflectivity radar hail measurement techniques.

- Aydin, K., et al, 1990, p.104-113, eng 44-3285
- Hail prevention**
- Hail experiment. Fedchenko, L.M., ed, 1989, 159p., rus 44-806
- Controlling hail: status and prospects. Fedchenko, L.M., et al, 1989, p.5-19, rus 44-807
- Analyzing the physical effect of actions on hail processes. Ashabokov, B.A., et al, 1989, p.133-137, rus 44-820
- Effect of anti-hail efforts on air pollution. Vorob'eva, T.I., et al, 1989, p.145-151, rus 44-822
- Cloud physics. Bettuganov, M.N., ed, 1989, 147p., rus 44-863
- New method of controlling hail processes. Abshaev, M.T., 1989, p.14-28, rus 44-865
- Effective control of hail processes. Abshaev, M.T., 1989, p.81-89, rus 44-871
- Selecting parameters for the anti-hail missile "Crystal". Abshaev, M.T., et al, 1989, p.97-104, rus 44-873
- Ice-forming capacity of anti-hail devices in a clear atmosphere. Berezinskii, N.A., et al, 1989, p.115-121, rus 44-875
- Hailstone growth**
- Isotopic study of hailstones on the plateau. Zhao, S.X., 1988, p.394-403, eng 44-526
- Numerical simulation of microphysical processes in cumulonimbus Pt.1. Hu, Z.J., et al, 1988, p.471-489, eng 44-527
- Two-dimensional numerical hailcloud model. Xu, H.B., et al, 1989, p.200-211, eng 44-529
- New method of controlling hail processes. Abshaev, M.T., 1989, p.14-28, rus 44-865
- Spreadsheet analysis of hailstone thermodynamics. List, R., 1989, p.1118-1127, eng 44-1514
- Hail growth in a multi-cellular hailstorm. Straka, J.M., 1990, 425p., eng 44-3271
- Hailstone structure**
- Scattering of a spheroidal ice/water particle. Hume, A.L., et al, 1989, p.351-357, eng 44-367
- Isotopic study of hailstones on the plateau. Zhao, S.X., 1988, p.394-403, eng 44-526
- Controlling hail: status and prospects. Fedchenko, L.M., et al, 1989, p.5-19, rus 44-807
- Determining the elemental composition of hailstones. Tisov, M.I., et al, 1989, p.29-44, rus 44-810
- Function of dielectric constant of nonhomogeneous hail particles. Marchenko, P.E., et al, 1989, p.35-41, rus 44-866
- Measuring the isotope composition of hydrogen in hailstones. Tisov, M.I., et al, 1989, p.121-130, rus 44-876
- Hail growth in a multi-cellular hailstorm. Straka, J.M., 1990, 425p., eng 44-3271
- Hailstones**
- Ice accretion on a spherical hailstone model. Okudzhava, A.M., et al, 1988, p.136-139, rus 44-69
- Hail experiment. Fedchenko, L.M., ed, 1989, 159p., rus 44-806
- Determining the elemental composition of hailstones. Tisov, M.I., et al, 1989, p.29-44, rus 44-810
- Cloud physics. Bettuganov, M.N., ed, 1989, 147p., rus 44-863
- Transformation of radar characteristics of the spectra of melting hail. Inuikhin, V.S., et al, 1989, p.42-52, rus 44-867
- Algorithm for calculating radar echoes of water saturated hailstones. Zhakamikhov, Kh.M., et al, 1989, p.62-71, rus 44-868
- General equation for the terminal fall speed of solid hydrometeors. Böhm, H.P., 1989, p.2419-2427, eng 44-1227
- Multiparameter radar modeling and observations of melting ice. Vivekanandan, J., et al, 1990, p.549-564, eng 44-3282
- Estimation of rain and hail rates in mixed-phase precipitation. Balakrishnan, N., et al, 1990, p.565-583, eng 44-3283
- Differential reflectivity radar hail measurement techniques. Aydin, K., et al, 1990, p.104-113, eng 44-3285
- See *also*: Artificial hailstones
- Handbooks**
- See *also*: Manuals
- Harbors**
- See *also*: Ports
- Hardening**
- See *also*: Concrete hardening
- Hardness**
- See *also*: Ice hardness; Snow hardness
- Hardness tests**
- Measurements of icing hardness. Schaefer, J.A., et al, 1989, p.89-93, eng 44-832
- Enhanced boulder weathering under late-lying snowpatches. Ballantyne, C.K., et al, 1989, p.745-750, eng 44-3397
- Haze**
- Determination of regional sources of aerosol black carbon in the Arctic. Kahl, J.D., et al, 1989, p.327-330, eng 44-388
- NOAA WP-3D instrumentation and flight operations on AGASP-II. Schnell, R.C., et al, 1989, p.3-16, eng 44-2165

- Meteorology and haze structure during AGASP-II, Pt. 1. Herbert, G.A., et al, 1989, p.17-48, eng 44-2166
- Meteorology and haze structure during AGASP-II, Pt. 2. Bridgman, H.A., et al, 1989, p.49-70, eng 44-2167
- Aerial measurements of optical depth of arctic haze. Dutton, E.G., et al, 1989, p.71-79, eng 44-2168
- Carbon dioxide and methane in the arctic atmosphere. Conway, T.J., et al, 1989, p.81-99, eng 44-2169
- Anthropogenic aerosols and gases in the lower troposphere at Alert, Canada in April 1986. Barrie, L.A., et al, 1989, p.101-127, eng 44-2170
- Origin of summer arctic hazes over Greenland and the North American Arctic. Brock, C.A., et al, 1989, p.129-148, eng 44-2171
- Concentrations of summer arctic hazes over Greenland and the North American Arctic. Ishizaka, Y., et al, 1989, p.149-159, eng 44-2172
- Contributions of burning of carbonaceous materials to arctic haze over Greenland. Radke, L.F., et al, 1989, p.161-167, eng 44-2173
- Studies of ice nucleation by arctic aerosol on AGASP-II. Borys, R.D., 1989, p.169-185, eng 44-2174
- Airborne and lidar measurements of tropospheric aerosol over Alert, Canada. Leitch, W.R., et al, 1989, p.187-211, eng 44-2175
- Surface aerosol measurements at Barrow during AGASP-II. Bodhaine, B.A., et al, 1989, p.213-224, eng 44-2176
- Arctic haze effects determined from radiometry. Valero, F.P.J., et al, 1989, p.225-244, eng 44-2177
- In-situ measurements of physical and chemical properties of arctic haze. Clarke, A.D., 1989, p.255-266, eng 44-2179
- Electron microscope studies of aerosol particles collected during AGASP-II. Sheridan, P.J., 1989, p.267-282, eng 44-2180
- PAN over the Arctic; observations during AGASP-2 in April 1986. Bottenheim, J.W., et al, 1989, p.301-316, eng 44-2182
- Aerosol black carbon measurements in the arctic haze during AGASP-II. Hansen, A.D.A., et al, 1989, p.347-361, eng 44-2185
- Elemental composition of particulate material sampled from the arctic haze aerosol. Sheridan, P.J., et al, 1989, p.363-381, eng 44-2186
- Measurements of carbon dioxide at Alert during an arctic haze event. Trivett, N.B.A., et al, 1989, p.383-397, eng 44-2187
- Proceedings. 1989, 285p., eng 44-2249
- Arctic air pollution: a Norwegian perspective. Ottar, B., 1989, p.2349-2356, eng 44-2250
- Barrow surface aerosol: 1976-1986. Bodhaine, B.A., 1989, p.2357-2369, eng 44-2251
- Resolution of ionic components of late winter arctic aerosols. Li, S.M., et al, 1989, p.2387-2399, eng 44-2253
- Ionic geochemistry of late winter arctic aerosols. Li, S.M., et al, 1989, p.2401-2415, eng 44-2254
- Measurements of hazes in polar air masses. Radke, L.F., et al, 1989, p.2417-2430, eng 44-2255
- Relationship between ozone and filterable bromine in the high Arctic. Oltmans, S.J., et al, 1989, p.2431-2441, eng 44-2256
- Air pollution properties at Norwegian Arctic stations. Iversen, T., 1989, p.2451-2462, eng 44-2258
- Seasonal variations in Greenland Ice Sheet pollutants. Davidson, C.I., et al, 1989, p.2483-2493, eng 44-2261
- Anticyclonic perspective on low-level tropospheric long-range transport. Raatz, W.E., 1989, p.2501-2504, eng 44-2263
- Anthropogenic sulphur flux into the Arctic in 1979/80. Barrie, L.A., et al, 1989, p.2505-2512, eng 44-2264
- Lead isotope ratios in arctic aerosols. Sturges, W.T., et al, 1989, p.2513-2519, eng 44-2265
- Atmospheric transport during AGASP-II. Herbert, G.A., et al, 1989, p.2521-2535, eng 44-2266
- Major haze event near Point Barrow, Alaska. Bridgman, H.A., et al, 1989, p.2537-2549, eng 44-2267
- Trace element features of atmospheric aerosol in the Norwegian Arctic. Maenhaut, W., et al, 1989, p.2551-2569, eng 44-2268
- Modelling of atmospheric transport of sulphates to the Arctic. Iversen, T., 1989, p.2571-2595, eng 44-2269
- Transport of pollution aerosol from Asia and the Arctic to Japan. Rahn, K.A., et al, 1989, p.2597-2607, eng 44-2270
- Toward estimation of climatic effects due to arctic aerosols. Blanchet, J.P., 1989, p.2609-2625, eng 44-2271
- Anthropogenic aerosols in a haze and snow coupled model. Blanchet, J.P., et al, 1984, p.269-272, eng 44-3435
- Heat**
- See *also*: Latent heat; Specific heat
- Heat balance**
- Thermal runoff to seas of the Arctic Ocean. Elshin, I.U.A., 1989, p.448-452, eng 44-286
- Planned reservoir and flooding the tongue of a glacier. Funk, M., et al, 1989, p.76-81, eng 44-552
- Ship icing from sea spray. Zakrzewski, W.P., et al, 1988, p.591-603, eng 44-1176

Heat balance (cont.)

- Climate and the surface ablation regime of the Greenland ice sheet. Ambach, W., [1989, p.311-316, eng] **44-1891**
- Simulations of the general circulation of the Martian atmosphere 1. Polar processes. Pollack, J.B., et al., [1990, p.1447-1473, eng] **44-2292**
- Velocity, heat budget and mass balance, Anvers Island ice cap. Casassa, G., [1989, p.341-352, eng] **44-2765**
- Effect of frozen soil on erosion—a model approach. Botterweg, P.F., [1990, p.135-144, eng] **44-2976**
- Soil thaw as influenced by small grain residue color. Sharratt, B.S., et al., [1990, p.290-294, eng] **44-2997**
- Review of the oceanography and micrometeorology of arctic leads and polynyas. Smith, S.D., [1990, p.123-126, eng] **44-3834**
- Prediction model for snowmelt using a heat balance method. Kondo, J., et al., [1990, p.375-384, eng] **44-3874**
- Snow cover energy and mass balance model in a balsam fir forest. Barry, R., et al., [1990, p.1079-1092, eng] **44-4130**
- Energy balance in polar regions. Weller, G., et al., [1990, p.311-314, eng] **44-4216**
- See also: Glacier heat balance; Permafrost heat balance
- Heat capacity**
- Analytical and numerical methods on freezing and melting heat-transfer problems. Fukusako, S., et al., [1987, p.351-402, eng] **44-1476**
- Methods of eliminating hydrated locks in gas pipelines. Malysheva, G.N., et al., [1989, p.128-132, rus] **44-2163**
- Heat capacity and glass transition of ethylene oxide clathrate hydrate. Yamamoto, O., et al., [1990, p.45-58, eng] **44-2774**
- Test apparatus for measurement of heat capacity of cryogenic materials from 77 to 300 K. Pattanayak, S., et al., [1990, p.122-126, eng] **44-3104**
- Experimental study of the temperature dependence of the effective heat capacity of peat. Gamaiunov, N.I., et al., [1987, p.111-115, eng] **44-3259**
- Measurement of thermal conductivity and heat capacity from 4 to 300 K. Kwok, R.S., et al., [1990, p.809-813, eng] **44-3907**
- Thermal stresses in a glass plate due to freezing and heating. Leonets, V.A., et al., [1990, p.130-135, rus] **44-4366**
- Heat conductivity**
- See also: Thermal conductivity
- Heat flux**
- Characteristics of the interaction of pipelines with frozen ground. Baglat, R.D., et al., [1989, p.37-39, rus] **44-95**
- Turbulent flux of sensible heat near antarctic polynyas. Engelbart, D., [1989, p.111-121, ger] **44-220**
- Measurement of the path-averaged turbulent surface heat flux. Andreas, E.L., [1988, p.219-220, eng] **44-421**
- Oceanic heat flux in the Fram Strait measured by a drifting buoy. Perovich, D.K., et al., [1989, p.995-998, eng] **44-467**
- Atmospheric boundary layer around an observation tower. Aota, M., et al., [1988, p.177-185, jpn] **44-738**
- Heat conduction in snow. Yen, Y.C., [1989, p.21-32, eng] **44-827**
- Small high-latitude ocean storms. Twitchell, P.F., et al., [1988, p.207-214, eng] **44-1140**
- One-dimensional mixed layer model beneath the Ross Ice Shelf with tidally induced vertical mixing. Scheduak, M., et al., [1990, p.29-42, eng] **44-2357**
- Heat and water flux in a diurnally freezing and thawing soil. Pikul, J.L., Jr., et al., [1990, p.113-119, eng] **44-2973**
- Three-wavelength scintillation measurement of turbulent heat fluxes. Andreas, E.L., [1990, p.74-77, eng] **44-3355**
- Extremal estimates in the theory of freezing of filtering soils. Kornev, G.K., [1990, p.569-574, eng] **44-3580**
- Movement of water, heat, and solutes in frost susceptible soils. Padilla, F., et al., [1990, p.43-49, eng] **44-3642**
- Surface energy balance and ground heat flux in organic permafrost. Halliwell, D.H., et al., [1990, p.223-229, eng] **44-3666**
- Inclusion of sensible heating in convective parameterization applied to lake-effect snow. Ellenton, G.E., et al., [1979, p.551-565, eng] **44-3748**
- Warming effect of meridional sea ice transport on climate. Ledley, T.S., [1990, p.256-258, eng] **44-3862**
- Oceanic heat flux in the Fram Strait measured by drifting buoy. Perovich, D.K., et al., [1990, p.91-296, eng] **44-3867**
- Heat flux of permafrost in West Siberia. Deviatkin, V.N., [1990, p.50-55, rus] **44-4300**
- Melting and heat flux parameterizations in a thermodynamic sea ice model. Harvey, L.D.D., [1990, p.7359-7365, eng] **44-4474**
- Thermal conditions over the Great Wall Station, summer 1987-1988. Bian, L., et al., [1990, p.73-81, chi] **44-4551**
- See also: Heat transfer; Ice heat flux; Snow heat flux

Heat loss

- Influence of the evaporation assessment method on the heat exchange during winter period. Jurak, D., [1989, p.93-106, eng] **44-2026**
- Heat measurement**
- See also: Temperature measurement
- Heat pipes**
- Polybutylene pipe freeze/thaw reliability testing. Farrington, R.B., [1987, 7p., eng] **44-1210**
- Ground freezing by a heat pipe using cold outside air. Matsuoka, K., et al., [1984, p.43-52, jpn] **44-1327**
- Snow melting and deicing system using heat pipes. Takaoka, M., et al., [1985, p.314-319, jpn] **44-2329**
- Frozen ground formation by heat pipe and its application. Fukuda, M., et al., [1985, p.362-367, jpn] **44-2330**
- Low temperature storage by means of heat pipe. Ryokai, K., et al., [1986, p.409-412, jpn] **44-2480**
- Snow melting system for the roof using heat pipes. Motoi, T., et al., [1986, p.585-590, jpn] **44-2503**
- Creation and conservation of frozen ground by the heat pipes. Sawada, S., et al., [1987, p.16-21, jpn] **44-2527**
- Low temperature storage by means of heat pipe, Pt.2. Ryokai, K., et al., [1987, p.22-26, jpn] **44-2528**
- Analysis of ice formation with flow reversal for application to a water source heat pump. Aceves-Saborio, S.M., et al., [1989, p.366-374, eng] **44-3030**
- Model to compare freezing control strategies for residential air-to-air heat recovery ventilators. Phillips, E.G., et al., [1989, p.475-483, eng] **44-3031**
- Comparison of freezing control strategies for residential air-to-air heat recovery ventilators. Phillips, E.G., et al., [1989, p.484-490, eng] **44-3032**
- Simulation of district heating systems for piping design. Phetteplace, G., [1989, 27p., eng] **44-3925**
- Optimal sizing of district heating pipes. Phetteplace, G., [1989, 25p., eng] **44-3926**
- Heat recovery**
- Heat pump road heating using waste heat from subways. Kobayashi, Y., et al., [1988, p.393-398, jpn] **44-2709**
- Heat storage by aquifers in cold regions. Ochifuji, K., et al., [1988, p.591-596, jpn] **44-2732**
- Road heating by heat pumps using waste heat from subway. Kobayashi, Y., et al., [1989, p.259-264, jpn] **44-2887**
- Heat sinks**
- Flow and heat transfer in an inclined, closed tube thermosiphon. Lock, G.S.H., et al., [1988, p.205-213, eng] **44-1417**
- Heat sources**
- Technical feasibility test of field burner unit using diesel fuel. Moody, D.S., et al., [1989, 33p. + append., eng] **44-474**
- Frost formation and defrosting for heat pump systems. Aoki, K., [1986, p.61-69, jpn] **44-1330**
- Heat pump road heating using waste heat from subways. Kobayashi, Y., et al., [1988, p.393-398, jpn] **44-2709**
- Road snow melting by gas in Sapporo. Shibuya, K., et al., [1988, p.399-404, jpn] **44-2710**
- Road heating by heat pump with air heat source. Shibuya, K., et al., [1989, p.271-276, jpn] **44-2889**
- Water sprinkling system for snow melting on railroad tracks. Sawase, K., [1989, p.136-142, eng] **44-3303**
- Primary effluent as a heat source for heat pumps. Phetteplace, G.E., et al., [1989, p.12-17, eng] **44-4255**
- Analysis of ice formation with flow reversal for application to a water source heat pump. Aceves-Saborio, S.M., et al., [1989, p.27-35, eng] **44-4256**
- Heat transfer**
- Advanced energy transmission fluids for district heating and cooling. Kasza, K.E., et al., [1987, p.202-211, eng] **44-15**
- Heat and moisture transport in thawing of frozen soil. Anitskil, P.A., [1987, p.136-144, eng] **44-302**
- Heat-moisture transfer in thawing frozen ground. Anitskil, P.A., [1987, p.116-122, rus] **44-320**
- Mass and heat transfer during frost growth. Sami, S.M., et al., [1989, p.158-165, eng] **44-441**
- Snow temperature and meltwater percolation of a glacier. Cai, B.L., et al., [1989, p.60-68, chi] **44-651**
- Theory of heat transfer-irreversible refrigeration plants. Bejan, A., [1989, p.1631-1639, eng] **44-665**
- Study of flow boiling heat transfer with refrigerant mixtures. Jung, D.S., et al., [1989, p.1751-1764, eng] **44-666**
- Solidification blockage of laminar flow at the 90 degree bend of a pipe. Chida, K., et al., [1989, p.83-92, eng] **44-690**
- Spring melt simulation in the Eaux Volées watershed, Montmorency Forest, Quebec. Berraja, M., et al., [1988, p.197-203, fre] **44-750**
- General report on frost action in soil. Slunga, E., et al., [1989, p.415-417, eng] **44-917**
- Stress-strain behavior and heat-mass transfer of frozen soil. Razbegin, V.N., [1989, p.419-424, eng] **44-918**
- On the freezing of sprayed sea water to produce artificial sea ice. Sackinger, W.M., et al., [1988, p.581-590, eng] **44-1175**
- Laminar flow heat transfer in a tube with freezing. Hirata, T., et al., [1988, p.3506-3511, jpn] **44-1279**

- Melting around a horizontal cylinder imbedded in a frozen porous medium. Okada, M., et al., [1987, p.40-54, eng] **44-1339**
- Supercooled water on a heat transfer surface. Saito, A., et al., [1988, p.207-217, jpn] **44-1367**
- Freezing around a vertical cylinder. Okada, M., et al., [1988, p.235-246, jpn] **44-1368**
- Using ice as a phase change material. Utaka, Y., et al., [1988, p.117-131, jpn] **44-1370**
- Analytical and numerical methods on freezing and melting heat-transfer problems. Fukusako, S., et al., [1987, p.351-402, eng] **44-1476**
- Spreadsheet analysis of hailstone thermodynamics. List, R., [1989, p.1118-1127, eng] **44-1514**
- Effect of percolation component on heat transfer in thawing soils. Zviagin, V.V., [1987, p.305-309, eng] **44-1516**
- Mathematical model of heat and mass transfer in stratified snow. Grigorian, S.S., et al., [1989, p.69-72, rus] **44-1574**
- Hydrodynamic model to calculate heat content of lakes. Sahlberg, J., [1987, 54p., eng] **44-1602**
- Surface roughness and bulk heat transfer on a glacier: comparison with eddy correlation. Munro, D.S., [1989, p.343-348, eng] **44-1895**
- Heat exchanger performance with freezing and periodic defrosts. Fisk, W.J., et al., [1985, p.159-172, eng] **44-2016**
- Influence of the evaporation assessment method on the heat exchange during winter period. Jurak, D., [1989, p.93-106, eng] **44-2026**
- Study of instability phenomena on ice-water interfaces. Kolodko, J., [1989, p.107-115, eng] **44-2027**
- Influence of some environmental factors on the evolution of river ice covers. Kolodko, J., [1989, p.116-121, eng] **44-2028**
- Influence of heated water discharges on ice phenomena in open channels. Loose, F., [1989, p.122-133, eng] **44-2029**
- Investigation of thermal exchange in frozen ground and ice masses. Danielian, I.U.S., et al., [1989, p.101-108, rus] **44-2159**
- Design criteria of level ice compressive strength. Meng, G.L., et al., [1990, p.289-292, eng] **44-2237**
- Thermal stabilization of permafrost with thermosiphons. Zarling, J.P., et al., [1990, p.323-328, eng] **44-2242**
- Energy-active zones: conceptual basis. Pt. 1. Mikhinov, A.E., ed., [1989, 239p., rus] **44-2380**
- Heat and moisture transfer in the seasonal thawing of frozen soils. Permiakov, P.P., et al., [1989, p.828-832, eng] **44-2381**
- Night-frost modulation of near-surface soil-water ion concentration and thermal fields. Outcalt, S.I., et al., [1989, p.336-348, eng] **44-2637**
- Effect of freezing on mass and heat transfer in porous media. Eldin, N.N., et al., [1990, p.177-185, eng] **44-2981**
- Effects of tillage and residue on frozen soils. Bidlake, W.R., et al., [1990, p.231-238, eng] **44-2989**
- Soil structure and root depth as affected by soil compaction. Voorhees, W.B., et al., [1990, p.295-303, eng] **44-2998**
- Analysis of ice formation with flow reversal for application to a water source heat pump. Aceves-Saborio, S.M., et al., [1989, p.366-374, eng] **44-3030**
- Versatile procedure for calculating heat transfer through windows. Arasteh, D.K., et al., [1989, p.755-765, eng] **44-3033**
- Simple method for modeling the frost formation phenomenon in different geometries. Padki, M.M., et al., [1989, p.1127-1137, eng] **44-3035**
- Atmospheric boundary layer around an observation tower. Aota, M., et al., [1989, p.79-89, jpn] **44-3127**
- Rapid thermal ice penetration system. Andersen, J.K., [1989, p.224-242, eng] **44-3149**
- Environment of wintertime leads and polynyas. Andreas, E.L., [1989, p.273-288, eng] **44-3154**
- Wind tunnel study of melting behavior of snow flakes. Mitra, S.K., et al., [1990, p.584-591, eng] **44-3284**
- Effect of water transfer on temperature and ice regime. Tsaker, E., [1988, p.89-98, eng] **44-3318**
- Comments on the prediction of ice crystal size distribution in a continuous crystallizer. Shirai, Y., et al., [1990, p.1147-1148, eng] **44-3535**
- Heat transfer in evacuated packed glass spheres at low temperature. Kluge, V.B., et al., [1988, p.239-248, ger] **44-3571**
- Convective heat transfer research using a cryogenic environment. Clausen, A.M., [1990, p.335-340, eng] **44-3575**
- Effect of convection on plug formation during cryogenic pipe freezing. Burton, M.J., et al., [1989, p.121-126, eng] **44-3700**
- Parametric analysis of self-freezing in an initially wet porous medium. Fey, Y.C., et al., [1988, p.147-155, eng] **44-3930**
- Numerical modelling of large-scale circulation in the North-European Basin. Semenov, G.A., [1990, p.85-87, eng] **44-4070**
- Primary effluent as a heat source for heat pumps. Phetteplace, G.E., et al., [1989, p.12-17, eng] **44-4255**

- Analysis of ice formation with flow reversal for application to a water source heat pump. Aceves-Saborio, S.M., et al, (1989, p.27-35, eng) **44-4256**
- Calculation of temperature fields in low-temperature pipelines. Zvereva, T.V., et al, (1990, p.101-106, rus) **44-4359**
- Heat transfer from a tube immersed in a fluidized bed with frosting. Tonkoshi, K., et al, (1990, p.73-91, eng) **44-4470**
- Study of water saturated porous media in the presence of convection. Chellaiah, S., (1988, 196p., eng) **44-4499**
- Effect of construction of foundations on permafrost thermal regime. Gorbacheva, V.M., et al, (1989, p.92-98, rus) **44-4517**
- See *also*: Heat flux; Permafrost heat transfer
- Heat transfer coefficient**
- Plasma thawing of frozen soils. Zadornov, G.A., et al, (1987, p.132-135, eng) **44-221**
- Planetary boundary layer over the polynya downwind of a Bering Sea island. Walter, B.A., (1989, p.255-282, eng) **44-411**
- Freezing heat transfer in pipes with 180 degree bends. Fukusako, S., et al, (1988, p.87-103, eng) **44-689**
- Local convective heat transfer coefficients. Newton, J.E., et al, (1988, 17p., eng) **44-1100**
- Ice-band structure effects on freezing of flowing water in a pipe. Hirata, T., (1987, p.9-16, eng) **44-1338**
- Frost growth in cylindrical tubes located outdoors. Monaghan, P.F., et al, (1988, p.963-972, eng) **44-1375**
- Frost formation of tube-array evaporators in a fluidized bed. Aihara, T., et al, (1988, p.973-980, eng) **44-1376**
- Freezing heat-transfer characteristics in a bent pipe. Tago, M., et al, (1988, p.213-224, eng) **44-1418**
- Production and storage of ice for cooling buildings. Wubben, E.A., et al, (1989, p.338-344, eng) **44-1525**
- Thermal conductivity coefficient of frozen chernozem-meadow soils. Mandarov, A.A., et al, (1988, p.76-86, rus) **44-1963**
- Thermal conductivity of moist saline soils and ground. Timofeev, A.M., et al, (1988, p.91-103, rus) **44-1967**
- Snow cover estimates through calculations of ground temperature and frost depth. Cherniadin, V.P., (1985, p.31-37, rus) **44-2368**
- Convective heat measurements from a NACA 0012 airfoil. Poinette, P.E., et al, (1990, 20p., eng) **44-2811**
- Heating**
- Preventive heating of power lines of direct current contact nets. Golev, V.A., (1988, 77p., rus) **44-70**
- Technical and symposium papers. (1989, 1349p., eng) **44-440**
- Keep fuel flowing. (1988, p.74-75, eng) **44-753**
- Reference guide for building diagnostics equipment and techniques. McKenna, C.M., et al, (1989, 64p., eng) **44-777**
- Proceedings of the 80th annual conference, Virginia Beach, June 18-21, 1989. (1989, 516p., eng) **44-2000**
- Changes of the ice thermal regime in the river caused by heated water discharges. Dobrowolski, A., et al, (1989, p.55-65, eng) **44-2023**
- Research on the depth of frost penetration of road-heating section. Ueda, H., et al, (1988, p.372-380, jpn) **44-2706**
- Save energy of road-heating. Hasegawa, H., et al, (1988, p.381-386, jpn) **44-2707**
- Road heating by heat pumps using waste heat from subway. Kobayashi, Y., et al, (1989, p.259-264, jpn) **44-2887**
- Simulation of district heating systems for piping design. Phetteplace, G., (1989, 27p., eng) **44-3925**
- Optimal sizing of district heating pipes. Phetteplace, G., (1989, 25p., eng) **44-3926**
- Effect of heat treatment, chemical composition and anticorrosive coatings on the threshold of cold brittleness of structural steels. Belkin, L.M., et al, (1990, p.33-38, rus) **44-4345**
- See *also*: Concrete heating; Electric heating; Pipeline heating; Radiant heating; Transition heating
- Heaving**
- See *also*: Frost heave
- Heavy water**
- Phenomenon of cryogenic concentration of heavy water. Adzhiev, M.E., (1989, p.65-69, rus) **44-337**
- Isotope effect on the glass transition and crystallization of hyperquenched glassy water. Johari, G.P., (1990, p.6742-6746, eng) **44-3592**
- Hedges**
- See *also*: Snow hedges
- Height**
- See *also*: Altitude
- Highland**
- Satellite radar altimetry over ice. Vol.2: Greenland. Zwally, H.J., et al, (1990, 82p., eng) **44-1824**
- Satellite radar altimetry over ice. Vol.4: Antarctica. Zwally, H.J., et al, (1990, 54p., eng) **44-1825**
- Satellite radar altimetry over ice. Vol.1: Greenland. Zwally, H.J., et al, (1990, 145p., eng) **44-1889**
- Topography and surface features of Larsen Ice Shelf. Ridley, J.K., et al, (1989, p.299-310, eng) **44-1890**
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- Satellite altimetry of the West Greenland ice sheet. Lingle, C.S., et al, (1990, p.158-163, eng) **44-4184**
- See *also*: Cloud height indicators
- Helicopters**
- Why is helicopter icing protection getting a cold reception. Smith, L.K., (1983, p.30-34, 76, eng) **44-394**
- JUH-1H redesigned pneumatic boot deicing system flight test evaluation. Graham, M.S., et al, (1987, 144p., eng) **44-712**
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- Artificial and natural icing tests of AH-64. Phase 2. Adkins, J.M., et al, (1987, 220p., eng) **44-1407**
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- Measuring freezing nucleus content in a water sample. Dubrovsky, M., et al, (1989, p.287-304, eng) **44-532**
- X-ray analysis and ice nucleating behavior of the AgI-CuI-KI system. Sivanesan, S., et al, (1989, p.4160-4163, eng) **44-1379**
- Nucleation on cylindrical nuclei. Knight, C.A., et al, (1987, p.599-601, eng) **44-1791**
- Bacterial nucleation of ice in plant leaves. Hirano, S.S., et al, (1986, p.730-738, eng) **44-1821**
- Effect of surface characteristics of metal oxides on heterogeneous nucleation. Gorbunov, B.Z., et al, (1989, p.225-230, rus) **44-2567**
- Influence of surface characteristics of metal oxides on heterogeneous nucleation. Model of ice formation from supercooled water. Gorbunov, B.Z., et al, (1989, p.231-236, rus) **44-2568**
- Heterogeneous ice nucleation on small particles. Efimov, I.U.A., et al, (1989, p.1039-1041, eng) **44-2785**
- Heterogeneous nucleation of ice at the liquid-liquid interface. Rosinski, J., et al, (1990, p.87-96, eng) **44-2787**
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- See *also*: Roads
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- See *also*: Depth hoar
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- See *also*: Air cushion vehicles
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Human factors (cont.)

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Hummocks

- See *also*: Frost mounds; Pingos

Hydrates

- Formation and decomposition of air hydrates in glacier ice. Lipenkov, V.I.A., 1989, p.58-64, rusj **44-336**

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- See *also*: Earth fills; Rock fills

Hydraulic jets

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Hydraulic structures

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- See *also*: Dams; Docks; Locks (waterways); Offshore structures; Piers; Sluices (hydraulic engineering); Wharves

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Hydrocarbons

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Hydrodynamics

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Hydroelectric power

- See *also*: Electric power

Hydrogen

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Hydrogeology

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- Arctic data compilation and appraisal. Vol.12. Beaufort Sea and Amundsen Gulf. Birch, J.R., et al., 1987, 459p., engj **44-1460**

- Arctic data compilation and appraisal. Vol.14. Northwest Passage. Birch, J.R., et al., 1987, 300p., engj **44-1461**

- Arctic data compilation and appraisal. Vol.16. Queen Elizabeth Is. Thomas, D.J., et al., 1986, 125p., engj **44-1462**

- Polar hydrography in the USSR. Burkov, G., et al, 1989, p.34-37, eng 44-1716
- Preliminary cruise report of USNS *Bertlett* to the Greenland Sea, 1989. Bourke, R.H., et al, 1989, 36p., eng 44-2041
- New airborne tool for arctic hydrography. 1988, p.1-2, eng 44-2430
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- Causeway effects on oceanographic processes near Prudhoe Bay. Hale, D.A., et al, 1989, 50p., eng 44-3772
- Hydrologic cycle**
- Glacier-hydrological conditions on the Inland Ice. Thomsen, H.H., et al, 1988, 1 fold. map and text, eng 44-487
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- Proceedings of the Fifth Canadian Permafrost Conference, 1989. 1990, 424p., eng 44-3635
- Hydrology and geochemistry in a Canadian tundra watershed. Bursey, G.G., et al, 1990, p.159-165, eng 44-3658
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- See *also*: Glacial hydrology; Permafrost hydrology; Snow hydrology; Surface waters
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- Hypothermia**
- See *also*: Cold exposure
- Ice**
- JARE-28 winter activities, 1987. Ayukawa, M., 1989, p.234-268, jpn 44-1471
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- WDC-A for Glaciology antarctic-related activities, 1987. Hanson, C.S., et al, 1988, p.218-219, eng 44-2141
- 1988-89 Australian Antarctic Research Program. Initial summary of research activity. 1989, 126p., eng 44-2378
- 1989-90 Australian Antarctic Research Program. Antarctic Treaty exchange information: Supplement A to particulars for Australian National Antarctic Research Expeditions. 1989, 262p., eng 44-2379
- See *also*: Artificial ice; Bottom ice; Capillary ice; Colored ice; Cubic ice; Dendritic ice; Deuterium oxide ice; Doped ice; Dry ice (trademark); Extraterrestrial ice; Fast ice; Floating ice; Fossil ice; Frazil ice; Glacier ice; Glaciology; Glaze; Ground ice; Grounded ice; High pressure ice; Interstitial ice; Lake ice; Land ice; Naïds; Pack ice; River ice; Salt ice; Sea ice; Snow ice; Spongy ice; Superheated ice; Underwater ice; Vitreous ice; Young ice
- Ice accretion**
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- See *also*: Ice growth; Icing rate
- Ice acoustics**
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Ice adhesion

- Radial adfreezing of permafrost in the basement of buildings. Maksimov, G.N., et al. [1989, p.491-496, eng] 44-925
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- Bond between coated steel surfaces and sea spray ice. Sackinger, W.M., et al. [1988, p.565-570, eng] 44-1173
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- Adfreeze bond strength between sea ice and anti-corrosion steel. Ohtsuki, F., et al. [1987, p.346-352, jpn] 44-2550
- Backfill property effects on the capacity of adfreeze pipe piles. Sego, D.C., et al. [1989, p.718-725, eng] 44-2645
- Adfreeze bond strength between ice and various materials. Saeki, H., et al. [1988, p.306-313, jpn] 44-2698
- Investigation of ice navigation capabilities and drift performance of the *Mikhail Somov* in antarctic waters. Dubov, A.A., et al. [1989, p.115-123, rus] 44-2831
- Chemically breaking the bond between ice and road surfaces. Trost, S.E., et al. [1987, 21p., eng] 44-3767

Ice age

See also: Pleistocene

Ice age theory

- Late Weichselian/Devonian ice sheets in the North Sea and adjacent land areas. Nesje, A., et al. [1988, p.371-384, eng] 44-82
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Ice air interface

- Thin ice growth. Ashton, G.D., [1989, p.564-566, eng] 44-7
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- Arctic program. Office of Naval Research FY 87. Obrochta, R., ed. [1989, 206p., eng] 44-472
- Arctic sciences program summary. FY 88. Obrochta, R., ed. [1989, 130p., eng] 44-473
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Ice bearing capacity

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Ice booms

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- Saint Mary's River-Little Rapids cut ice boom, 1983-84. [1984, 50p., eng] 44-1634
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Ice bottom surface

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- Mechanics of ice crushing by propeller blades. Beliaшов, V.A., et al. [1983, 10p., eng] 44-605
- Semi-empirical ice resistance model. Vol.1. Lewis, J.W., et al. [1983, 126p., eng] 44-885
- Ice edge studies aboard *Polar Sea*; Vol.2: Ice milling. Coburn, J.L., et al. [1986, 215p., eng] 44-1076
- Experimental study of the brittle behaviour of iceberg ice. Lachance, J., et al. [1988, p.11-19, eng] 44-1125
- Shear box tests on broken ice. Wong, T.T., et al. [1988, p.97-107, eng] 44-1132
- Stress-strain behaviour of cohesionless broken ice. Gale, A.D., et al. [1988, p.109-119, eng] 44-1133
- Deep ice penetrator. Rychnovsky, R., [1988, p.323-336, eng] 44-1150
- Decreasing the strength of ice due to adsorption of surrounding water. Petrov, I.G., [1989, 6p., eng] 44-1184
- Ship ice breaking dynamics and level ice resistance testing. Vol.1. Voelker, R.P., et al. [1985, 52p., eng] 44-1280
- Ship icebreaking dynamics and level ice resistance testing. Vol.2. Voelker, R.P., et al. [1985, 302p., eng] 44-1281
- Speculations on the origin of low frequency Arctic Ocean noise. Dyer, I., [1988, p.513-532, eng] 44-1707
- Observation of the sound radiated by individual ice fracturing events. Stein, P.J., [1988, p.533-544, eng] 44-1708
- Correlation of mid-frequency pack ice noise with environmental parameters. Keenan, R.E., [1988, p.545-554, eng] 44-1709
- High frequency ambient sound in the Arctic. Farmer, D.M., et al. [1988, p.555-563, eng] 44-1710
- Acoustic ambient noise in the Arctic Ocean below the marginal ice zone. Buckingham, M.J., et al. [1988, p.583-598, eng] 44-1712
- Level ice resistance of USCGC *Polar Sea* in Antarctica. Voelker, R.P., et al. [1988, 94p., eng] 44-1944
- Ice release from a reservoir. Bakonyi, P., [1989, p.15-25, eng] 44-2019
- Ice engineering at Hamburgische Schiffbau-Versuchsanstalt. Schwarz, J., [1989, p.199-212, eng] 44-2036
- Tests of ice crushing on a flexible structure. Singh, S.K., et al. [1990, p.89-94, eng] 44-2211
- Ice structure interface model for crushing with extrusion. Marcellus, R.W., et al. [1990, p.95-101, eng] 44-2212
- Theoretical investigation of the icebreaking cycle in 2-D. Valanto, P., [1990, p.111-126, eng] 44-2214
- Ship icebreaking resistance with flooding water effect. Wang, S.L., et al. [1990, p.127-134, eng] 44-2215
- Analysis of structural response to dynamic ice action. Kirn, T., et al. [1990, p.135-142, eng] 44-2216
- Study of ice shedding phenomenon on cables. Druet, J., et al. [1990, p.143-148, eng] 44-2217
- Ice control methods. Izumi, K., et al. [1987, p.339-345, jpn] 44-2549
- Model of ice ridge breaking by USCG Polar Star. Comfort, G., et al. [1989, p.121-126, eng] 44-3019
- Breaking pattern of model ice by icebreaker bow form. Newbury, S., [1989, p.135-138, eng] 44-3021
- Chaotic dynamics in continuous-mode icebreaking. Ettema, R., et al. [1989, p.139-146, eng] 44-3022
- Transient model of visco-icy layer caused by solid indentation on ice. Shih, L.Y., [1989, p.299-309, eng] 44-3117
- Hull forms for U.S. Navy surface ship ice transit. Milano, V.R., [1989, p.314-370, eng] 44-3157
- Study into the effect of buoyancy on ice/hull interaction. Reynolds, A., [1989, 4p. + photographs, eng] 44-3194

- Parametric study of icebreaking bow forms. Carter, D., 1990, 87p., eng 44-3198
- Conference on Icebreaking and Related Technologies, 3rd, Calgary, 1984, (1984, var.p., eng) 44-3449
- Propulsion power of an ice-going tanker ship. Takekuma, K., et al, (1984, p.B/1-B/12, eng) 44-3451
- Estimation of icebreaking resistance by ship motion simulation. Ishibashi, Y., (1984, p.L/1-L/10, eng) 44-3460
- Conference on Ships and Marine Systems in Cold Regions, 4th, 1990, (1990, var.p., eng) 44-3464
- Physical modelling of a first year ridge ramming event. Comfort, G., et al, (1990, p.A/1-A/24, eng) 44-3465
- Baltic escort icebreaker class *Otto*. Lindroos, H., (1990, p.G/1-G/10, eng) 44-3470
- Full-scale experiences with *Thyssen/Waas* icebreakers. Varges, G.R., (1990, p.H/1-H/14, eng) 44-3471
- Summary of Beaufort Sea icebreaker performance. Keinonen, A.J., et al, (1990, p.I/1-I/10, eng) 44-3472
- Ice class upgrading of M.V. *Arctic*. Luce, M.P., (1990, p.K/1-K/9, eng) 44-3473
- Design and construction of the icebreaker *Oden*. Liljeström, G.C., et al, (1990, p.L/1-L/10, eng) 44-3474
- Research vessel for the U.S. Antarctic Program. Kennedy, H., et al, (1990, p.M/1-M/8, eng) 44-3475
- Design method for icebreaker hull loads due to level icebreaking. St. John, J.W., et al, (1990, p.O/1-O/14, eng) 44-3477
- Modeling of ice class shafting systems. Cowper, D.N.B., et al, (1990, p.P/1-P/22, eng) 44-3478
- Propulsion machinery concepts for icebreaking ships. Schmid, H., (1990, p.Q/1-Q/23, eng) 44-3479
- Icequakes on Ekström Ice Shelf near Atka Bay, Antarctica. Von der Osten-Woldenburg, H., (1990, p.31-36, eng) 44-3718
- Resistance of snow to motion of an icebreaker. Gramuzov, E.M., (1989, 9p., eng) 44-3734
- On a frequency analysis of ice impacts. Javanainen, M., (1989, 8p., eng) 44-3735
- Notes on icebreaking with air cushion vehicles. Carter, D., (1989, p.3-23, eng) 44-4133
- Some exploratory tests on circular and sidewall ACIB concepts. Colbourne, B., et al, (1989, p.39-55, eng) 44-4134
- Optimization of hull form for future arctic tankers—phase I. Summary report. Luce, M.P., et al, (1989, 12p., eng) 44-4266
- Oden: icebreaker technology for the year 2000*. Johansson, B.M., et al, (1990, p.53-83, eng) 44-4422
- Oden: a state-of-the-art icebreaker*. Johansson, B.M., et al, (1989, p.1229-1265, eng) 44-4428
- Research on icebreaking process. Varsta, P., (1989, p.1297-1317, eng) 44-4431
- See *also*: Ice cutting; Icebreakers
- Ice breakup**
- Ice break-up on northern rivers: the Liard River as an example. Prowse, T.D., (1989, p.24-42, eng) 44-139
- Freeze-up and break-up of ice cover on small arctic lakes. Woo, M.K., (1989, p.56-62, eng) 44-141
- Applied hydrology in the development of northern basins. (1988, 347p., eng) 44-232
- Development of a dynamic ice breakup control method for the Connecticut River near Windsor, Vermont. Ferrick, M.G., et al, (1988, p.221-233, eng) 44-251
- Predicting river ice breakup using hydrometric station records. Forsius, J., (1988, p.235-243, eng) 44-252
- Ice pack rigidity and mobility characteristics. Lewis, J.K., et al, (1989, p.69-77, eng) 44-298
- Framework for control of dynamic ice breakup by river regulation. Ferrick, M.G., et al, (1989, p.79-92, eng) 44-613
- Ice thickness data, winter 1985-1986. (1989, 80p., eng) 44-745
- Breakup of antarctic fast ice. Crocker, G.B., et al, (1989, p.61-76, eng) 44-829
- Understanding ice and its behavior in marinas. Wortley, C.A., (1985, 2p., eng) 44-1065
- Ice regime of rivers in the USSR. Donchenko, R.V., (1987, 246p., rus) 44-1718
- Ice problems and their solution on Czechoslovak rivers. Matoušek, V., (1989, p.168-178, eng) 44-2033
- Catastrophic breakup of a calving glacier. Theakstone, W.H., (1989, p.245-253, eng) 44-2625
- Forecasting ice cover load capacity, ice drift, and ice clearing in reservoirs. Lobovikova, Z.P., (1989, p.48-51, rus) 44-2929
- Characteristics of the freezeup and breakup of rivers in Kamchatka and Sakhalin. Lobovikova, Z.P., (1989, p.100-101, rus) 44-2931
- Penetration of floating ice sheets with cylindrical indentors. Sodhi, D.S., et al, (1989, p.104, eng) 44-3141
- Technical measures for reduction of ice damage. Carstens, T., et al, (1987, p.231-240, eng) 44-3314
- Formation and breakup of ice cover. Bettinson, M.M., (1989, 216p., rus) 44-3491
- Fracture and breakup of river ice cover. Beltaos, S., (1990, p.173-183, eng) 44-3702
- Assessment of hydraulic structures in a stream after seasonal ice run. Calkins, D.J., et al, (1989, 12p., eng) 44-3923
- Premature breakup of river ice cover. Abdel-Zaher, A.K., et al, (1989, p.59-73, eng) 44-3999
- Ice breakup of the Nashwaak River, New Brunswick. Prowse, T.D., et al, (1989, p.142-155, eng) 44-4007
- Failure modes observed during river ice breakup. Prowse, T.D., et al, (1989, p.237-241, eng) 44-4020
- Hydrological regime of lakes in the Mackenzie Delta, Northwest Territories, Canada. Bigras, S.C., (1990, p.163-174, eng) 44-4049
- Beaufort and Chukchi Sea ice motion part 2—onset of large scale Chukchi Sea ice breakout. Reimer, R.W., et al, (1979, 92p., eng) 44-4139
- Calculating the breakup of a river ice cover. Kozitski, I.E., (1989, p.17-28, rus) 44-4400
- Forecasting of water discharge for the upper Amur in the period of ice breakup. Buzin, V.A., (1989, p.81-86, rus) 44-4407
- Calving of Erebus Glacier tongue. Robinson, W., et al, (1990, p.615-616, eng) 44-4486
- Ice bridges**
- See *also*: Ice crossings
- Ice caps**
- See *also*: Ice sheets
- Ice composition**
- Characteristics of Breid Bay first-year sea ice. Tison, J.L., et al, (1989, p.261-268, eng) 44-64
- Rime ice composition at the Elk Mountain Observatory. Snider, J.R., et al, (1987, p.23-38, eng) 44-77
- Naleds of the Yamal and Gydan peninsulas. Kritsuk, L.N., (1989, p.86-92, rus) 44-153
- Analysis of a 290-year net accumulation time series from Mt. Logan, Yukon. Holdsworth, G., et al, (1989, p.71-79, eng) 44-174
- Chemical interaction in the system "water-ice-rock". Ivanov, A.V., (1989, p.75-80, rus) 44-339
- Stratification of glaciers in Kamchatka. Valmiev, R.A., et al, (1989, p.144-148, rus) 44-351
- Bacteriological studies in antarctic water and ice. Castelli, J., (1988, p.169-175, spa) 44-390
- Vapor pressure of HCl dissolved in polar stratospheric cloud materials. Hanson, D.R., et al, (1988, p.1507-1510, eng) 44-480
- Climatic ice core records from Qinghai-Tibetan Plateau. Thompson, L.G., et al, (1989, p.474-477, eng) 44-493
- Low energy ion bombardment of ice. Christiansen, J.W., (1989, 88p., eng) 44-967
- Arctic seas: climatology, oceanography, geology, and biology. Herman, Y., ed, (1989, 888p., eng) 44-981
- Chemical oceanography of the Arctic Ocean. Anderson, L., et al, (1989, p.93-114, eng) 44-984
- Primary production, chlorophyll, light, and nutrients beneath the arctic sea ice. Andersen, O.G.N., (1989, p.147-191, eng) 44-985
- Sorption behavior of SO₂ on ice at temperatures between -30 C and -5 C. Clapsaddle, C., et al, (1989, p.1173-1176, eng) 44-1068
- Ice core ionic concentrations determined by dielectric stratigraphy. Moore, J.C., et al, (1989, p.1177-1180, eng) 44-1069
- Thermophysical properties of sea ice. Nazintsev, I.U.L., et al, (1988, 258p., rus) 44-1402
- Origin of arctic precipitation under present and glacial conditions. Johnsen, S.J., et al, (1989, p.452-468, eng) 44-1445
- Arctic data inventory and appraisal. Vol.18. Canada Basin. Thomas, D.J., et al, (1986, 109p., eng) 44-1474
- Algae concentrated by frazil ice. Garrison, D.L., et al, (1989, p.313-316, eng) 44-1489
- Heterogeneous physicochemistry of the polar ozone hole. Turco, R.P., et al, (1989, p.16.493-16.510, eng) 44-1626
- Paramagnetic species produced by gamma irradiation of sulfuric acid ices. Ohno, K., et al, (1989, p.1657-1660, eng) 44-1677
- Ice-core records and ozone depletion—potential for a proxy ozone record. Mayewski, P.A., et al, (1988, p.64-68, eng) 44-1698
- Isotopic oxygen-18 results from blue-ice areas. Grootes, P.M., et al, (1988, p.70, eng) 44-1700
- Origin of non-sea-salt sulphate in the Mount Logan ice core. Monaghan, M.C., et al, (1990, p.245-248, eng) 44-1849
- Weddell Sea and Antarctic Peninsula biota in pack ice. Garrison, D.L., et al, (1989, p.211-219, eng) 44-1864
- Basal ice formation and deformation: a review. Hubbard, B., et al, (1989, p.529-558, eng) 44-2094
- Effect of specimen size on the bending strength of alluvium reinforced ice. Nixon, W.A., et al, (1990, p.217-222, eng) 44-2226
- Fracture toughness of porous ice with and without particles. Smith, T.R., et al, (1990, p.241-246, eng) 44-2230
- Uranium-series dating of tephra-banded Allan Hills ice. Fireman, E.L., (1989, p.335-343, eng) 44-2245
- Paleovariations of carbon dioxide in antarctic ice cores. Semiletov, I.P., et al, (1989, p.196-199, rus) 44-2606
- Chemical and structural properties of sea ice in the southern Beaufort Sea. Meese, D.A., (1989, 134p., eng) 44-2630
- Geochemistry of glaciers of Ak-Shyryk. Makarov, V.N., et al, (1989, p.130-143, rus) 44-3241
- Impact of ice on petroleum exploration in the Barents Sea. Løset, S., et al, (1988, p.195-206, eng) 44-3323
- Pigment data from ice cores near Showa Station, Mar. 1983-Jan. 1984. Watanabe, K., et al, (1990, 88p., eng) 44-3357
- Incorporation of stratospheric acids into water ice. Elliott, S., et al, (1990, p.425-428, eng) 44-3425
- Volume relaxation of ice core from Vostok Station borehole. Lipenkov, V.I.A., et al, (1989, p.59-72, rus) 44-3495
- Glacial-interglacial CO₂ change: the iron hypothesis. Martin, J.H., (1990, p.1-13, eng) 44-3501
- Transport rates of chemical constituents by drifting snow at Mizuho Station. Osada, K., et al, (1990, p.43-50, eng) 44-3546
- Isotopic composition of ice-wedge ice in northwestern Canada. Michel, F.A., (1990, p.5-9, eng) 44-3636
- Dominion Range ice core characteristics, Antarctica. Mayewski, P.A., et al, (1990, p.11-16, eng) 44-3716
- Physical properties of brackish ice, Bay of Bothnia. Weeks, W.F., et al, (1990, p.5-15, eng) 44-3809
- Development and physical properties of sea ice in the Weddell Sea, Antarctica. Lange, M.A., (1990, p.22-28, eng) 44-3811
- Chemical and structural properties of sea ice in the southern Beaufort Sea. Meese, D.A., (1990, p.32-35, eng) 44-3813
- Nutrient concentrations in antarctic pack ice during the austral winter. Garrison, D.L., et al, (1990, p.35-40, eng) 44-3814
- Suspended-matter scavenging by rising frazil ice. Reimnitz, E., et al, (1990, p.97-100, eng) 44-3826
- Wave-induced sediment enrichment in coastal ice covers. Shen, H.T., et al, (1990, p.100-102, eng) 44-3827
- Sediment in Eurasian arctic sea ice. Wollenburg, I., et al, (1990, p.102-106, eng) 44-3828
- Sediment pellets on sea ice. Barnes, P.W., et al, (1990, p.106-108, eng) 44-3829
- Geochemistry of glaciers in China. Wang, P., (1989, p.122-137, chi) 44-3888
- Heterogeneous reactions on model polar stratospheric cloud surfaces. Quinlan, M.A., et al, (1990, p.3255-3260, eng) 44-3945
- HCl/H₂O solid-phase vapor pressures and HCl solubility in ice. Hanson, D.R., et al, (1990, p.4700-4705, eng) 44-3946
- Spreading of chemicals on ice and snow. Kawamura, P., et al, (1988, 106p., eng) 44-3960
- Depletion of hydrogen peroxide in a Greenland ice core. Laj, P., et al, (1990, p.45-48, eng) 44-4036
- Glaciological survey of the Summit region, Greenland. Mayewski, P.A., et al, (1990, p.186-190, eng) 44-4190
- Ice chemistry and dielectric profiling. Moore, J.C., et al, (1990, p.195-198, eng) 44-4192
- Climatic information from the Chongce Ice Cap, West Kunlun, China. Nakawo, M., et al, (1990, p.205-207, eng) 44-4194
- Review of Central Asian glaciological data. Wake, C.P., et al, (1990, p.301-306, eng) 44-4214
- Origin of the chemical composition of the ice in the Amur River. Shesterkin, V.P., (1990, p.3-12, rus) 44-4287
- Studies on the BHQ ice core from the Law Dome, Antarctica. Huang, M., et al, (1990, p.20-26, eng) 44-4550
- Ice conditions**
- Report of the International Ice Patrol in the North Atlantic: season of 1987. (1987, 132p., eng) 44-34
- Informational possibilities of the side-looking radar system of the "Kosmos-1500" satellite. Tsybmal, V.N., et al, (1989, p.486-501, eng) 44-187
- Computer-generated graphics of river ice conditions. Bilello, M.A., et al, (1988, p.211-219, eng) 44-250
- Ice conditions of the Finnish lakes in the year 2050. Kuusisto, E., (1988, p.245-252, eng) 44-253
- Interpreting satellite imagery. Cote, P., (1989, p.58-59, eng) 44-273
- Overview of LIMEX'87 ice observations. Carsey, F.D., et al, (1989, p.468-482, eng) 44-401
- Distribution of pack ice off Okhotsk Sea coast of Hokkaido. Aota, M., et al, (1988, p.35-64, jpn) 44-459
- Sea ice conditions in the Arctic Ocean. Wadhams, P., (1987, p.83-94, eng) 44-599
- Ship operations, 1986-1987. Marthaler, J.G., (1989, p.306-309, eng) 44-664
- Variation in ice concentration off Hokkaido Island. Aota, M., et al, (1988, p.161-175, jpn) 44-737
- Atmospheric boundary layer around an observation tower. Aota, M., et al, (1988, p.177-185, jpn) 44-738
- Temporal variation of freezing degree days in Danish domestic waters. Christensen, F.T., (1988, p.201-206, eng) 44-1139
- Ice conditions in the Soviet Arctic: trends of multi-year variations. Arikainen, A., (1988, p.215-220, eng) 44-1141
- Operation testing and evaluation of the regional ice model. Krakowski, E., (1988, p.221-227, eng) 44-1142
- Iceberg scoring rates on the Grand Banks, Newfoundland. Lewis, C.F.M., et al, (1988, p.229-254, eng) 44-1143

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- Full-scale measurement of sea ice forces on a jacket structure. Shi, Q.Z., et al, [1988, p.337-344, eng] 44-1151
- High-capacity moorings and anchors for floating arctic platforms. Gerwick, B.C., [1988, p.451-457, eng] 44-1162
- Bering Sea data collection aboard USCGC *Polar Star*, Feb.-Mar. 1984, Vol.1. Voelker, R.P., et al, [1984, 259p., eng] 44-1214
- Simulating ice conditions and ship transits through ice. Kotras, T.V., [1987, 57p., eng] 44-1269
- Bothnia Experiment in Preparation for ERS-1. [1988, 165p., eng] 44-1422
- Overview of BEPERS Pilot Study. Leppäranta, M., et al, [1988, p.1-15, eng] 44-1423
- SAR flight. Kuittinen, R., [1988, p.17-29, eng] 44-1424
- Ground base I. Vainio, J., [1988, p.31-40, eng] 44-1425
- Ice and snow geophysics in area II. Leppäranta, M., et al, [1988, p.41-68, eng] 44-1426
- Aerial photography in BEPERS Pilot Study. Kempainen, H., et al, [1988, p.107-117, eng] 44-1430
- Airborne radar observations. Johansson, R., et al, [1988, p.119-147, eng] 44-1431
- Satellite data. Kempainen, H., et al, [1988, p.153-159, eng] 44-1433
- Beaufort Sea mesoscale circulation study—final report. Aagaard, K., et al, [1989, 114p., eng] 44-1834
- Ice cover effect on the hydraulics of impoundment reservoirs. Majewski, W., [1987, 132p., pol] 44-1940
- Changes of the ice thermal regime in the river caused by heated water discharges. Dobrowolski, A., et al, [1989, p.55-65, eng] 44-2023
- Influence of heated water discharges on ice phenomena in open channels. Loose, F., [1989, p.122-133, eng] 44-2029
- Thermal and ice regimes of reservoirs and basins of power plants. Shatalina, I.N., [1989, p.213-221, eng] 44-2037
- Effect of Danube dams on ice regime. Starosolszky, O., [1989, p.222-232, eng] 44-2038
- Exploration drilling and production in the Barents Sea. Löset, S., et al, [1990, p.25-30, eng] 44-2203
- Modelling bridge induced ice jams. Brown, T.G., [1990, p.169-175, eng] 44-2221
- Wave-induced bergy bit motion near a floating platform. Mak, L.M., et al, [1990, p.205-215, eng] 44-2225
- Barents Sea ice SAR survey. Bercha, F.G., et al, [1990, p.301-307, eng] 44-2239
- Climatic changes during the past century. Li, P.J., [1989, p.193-202, chi] 44-2414
- International Ice Patrol: the battle continues. Christian, M.B., [1990, p.8-10, eng] 44-2437
- Ice conditions in the arctic regions. Saitoh, T., et al, [1987, p.305-310, jpn] 44-2543
- Satellite monitoring of sea ice along the coast of China. Gong, J., [1989, p.379-390, eng] 44-2594
- Ice conditions along Illinois Waterway, 1972-1985. Gatto, L.W., [1989, 112p., eng] 44-2631
- Atmospheric boundary layer around an observation tower. Aota, M., et al, [1989, p.79-89, jpn] 44-3127
- Attempt to interpret sea-ice features from the MOS-1 passive microwave data. Ono, N., [1989, p.103-109, jpn] 44-3129
- Proposed tactical investigation of a model arctic submarine. Richardson, C., [1989, p.249-259, eng] 44-3151
- Ice thickness radar measurements during CEAREX. Onstott, R.G., et al, [1989, p.451-460, eng] 44-3162
- Eastern-western arctic sea ice analysis, 1986. [1987, n.p., eng] 44-3254
- Hydrophysical impact of power water discharge to Gaupnefjorden. Steen, J.E., et al, [1987, p.159-171, eng] 44-3313
- Effect of water transfer on temperature and ice regime. Tesaker, E., [1988, p.89-98, eng] 44-3318
- Ice—the major challenge for petroleum exploitation in the Barents Sea. Jørgensen, T.S., [1988, p.181-194, eng] 44-3322
- Impact of ice on petroleum exploration in the Barents Sea. Löset, S., et al, [1990, p.195-206, eng] 44-3323
- Sea ice climatic atlas: Volume 2, Arctic East. [1986, 147p., eng] 44-3405
- Sea ice climatic atlas: Volume 3, Arctic West. [1986, 147p., eng] 44-3406
- Conference on Icebreaking and Related Technologies, 3rd, Calgary, 1984. [1984, var.p., eng] 44-3449
- Eleven months in the installation of an arctic mobile drilling structure. Johansson, B.M., et al, [1984, p.A/1-A/19, eng] 44-3450
- Damage due to ship collisions with icebergs. Aldwinckle, D.S., et al, [1984, p.D/1-D/14, eng] 44-3453
- Multi-modal ice-management system. Aker, C.M., [1984, p.G/1-G/16, eng] 44-3456
- Mobile offshore units operating in ice-infested waters. Nassim, M.A., et al, [1984, p.H/1-H/12, eng] 44-3457
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- Estimation of icebreaking resistance by ship motion simulation. Ishibashi, Y., [1984, p.L/1-L/10, eng] 44-3460
- Conference on Ships and Marine Systems in Cold Regions, 4th, 1990. [1990, var.p., eng] 44-3464
- Ice model tests for icebreaker design. Soininen, H., et al, [1990, p.C/1-C/11, eng] 44-3467
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- Probabilistic analysis of summer impact loads on arctic offshore structures. Tunik, A.L., et al, [1990, p.N/1-N/10, eng] 44-3476
- Ice conditions along Alaskan marine transportation routes. Voelker, R.P., et al, [1990, p.R/1-R/8, eng] 44-3480
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- Revised navigation control system for CASPPR based on ice regimes. Lapp, D.J., et al, [1990, p.V/1-V/15, eng] 44-3483
- Strength requirements in the proposed CASPPR. Daley, C.G., [1990, p.X/1-X/13, eng] 44-3485
- Design criteria for arctic vessels. Browne, R.P., [1990, p.AA/1-AA/9, eng] 44-3488
- Formation and breakup of ice cover. Belfinson, M.M., [1989, 216p., rus] 44-3491
- Nearshore Great Lakes ice cover. Bolsenga, S.J., [1988, p.99-105, eng] 44-3502
- Development and physical properties of sea ice in the Weddell Sea, Antarctica. Lange, M.A., [1990, p.22-28, eng] 44-3811
- Time-lapse motion study of sea ice in the Greenland Sea. Gloersen, P., [1990, p.177-179, eng] 44-3845
- Sea ice conditions due to meteorological effects in the Canada Basin. Maslanik, J.A., et al, [1990, p.181-184, eng] 44-3847
- NASA sea ice validation program for the DMSP SSM/I. Cavalieri, D.J., et al, [1990, p.197-203, eng] 44-3849
- Validation of the SSM/I and AES/YORK algorithms for sea ice parameters. Bjerkelund, C.A., et al, [1990, p.206-208, eng] 44-3851
- Airborne passive microwave observations of arctic sea ice. Comiso, J.C., et al, [1990, p.233-235, eng] 44-3857
- Simulation of the ice cover variations in the Arctic. Fleming, G.H., [1990, p.243-247, eng] 44-3859
- Urgent problems in studying sea ice in the Arctic Ocean. Buzuev, A.I.A., et al, [1990, p.101-106, eng] 44-4074
- Sea ice off the Icelandic coasts. Jakobsson, T., [1990, p.106-110, eng] 44-4075
- TALS system and scientific and operational support of navigation. Kapustin, A.N., et al, [1990, p.110-113, eng] 44-4076
- Impact of ice on petroleum exploration in the Barents Sea. Löset, S., et al, [1990, p.119-128, eng] 44-4078
- Arctic Ocean sea ice massifs. Smirnov, V.I., [1990, p.147-149, eng] 44-4081
- Arctic Ocean multi-year ice balance, 1979-82. Rothrock, D.A., et al, [1990, p.252-255, eng] 44-4204
- Impact of global warming on Great Lakes ice cycles. Assel, R.A., [1989, p.5/1-5/30, eng] 44-4251
- Simulation of hydraulics and thermal-ice regimes in river networks. Gunaratna, P.P., [1990, 274p., eng] 44-4284
- Change in the ice regime of the lower Syrdarya due to runoff diversion. Gal'perin, R.I., [1988, p.71-79, rus] 44-4318
- Calculating the ice regime of rivers and channels. Gal'perin, R.I., [1988, p.135-147, rus] 44-4320
- Studies, calculations and predictions of the ice and thermal regime of surface waters. Buzin, V.A., ed, [1989, 120p., rus] 44-4398
- Statistical forecasting of river ice conditions. Shanochkin, S.V., et al, [1989, p.86-95, rus] 44-4406
- Effect of a hydroelectric power plant on ice conditions. Filippov, A.M., [1989, p.95-101, rus] 44-4409
- Sea ice concentration in the Bothnian Sea obtained from visual satellite data. Håkansson, B., [1989, p.1358-1369, eng] 44-4435
- Arctic ice classification using satellite microwave data. Comiso, J.C., [1990, p.13,411-13,422, eng] 44-4545
- Dynamic and thermodynamic sea ice model for subpolar regions. Lu, Q.M., et al, [1990, p.13,433-13,457, eng] 44-4547
- See *also*: Sea ice distribution
- Ice (construction material)
- Artificial freezing-on of engineering ice-soil structures. Savel'ev, B.A., et al, [1989, p.497-503, eng] 44-926
- Design and construction of the Mars ice island. Funegard, D.G., et al, [1988, p.31-38, eng] 44-1013
- Using granular ice in erecting structures of complex forms. Smorygin, G.I., [1989, p.118-127, rus] 44-2162
- Possibility of building ice platforms on shelves in the arctic seas. Savel'ev, B.A., et al, [1985, p.58-62, rus] 44-2374
- Habbakuk project—building ships from ice. Gold, L.W., [1989, p.1211-1228, eng] 44-4427
- Ice control
- Development of a dynamic ice breakup control method for the Connecticut River near Windsor, Vermont. Ferrick, M.G., et al, [1988, p.221-233, eng] 44-251
- Expected effects on the hydrography and brackish layer currents caused by hydroelectric discharges to a Norwegian fjord system. Gjerp, S.A., et al, [1988, p.315-323, eng] 44-258
- Intake design for ice conditions. Ashton, G.D., [1988, p.107-138, eng] 44-308
- Hot sand field trials: traction aid on icy surfaces. Reckard, M.K., [1987, 23p., eng] 44-704
- SHRP snow, ice contracts may aid snowfighters. Minak, D., [1989, p.47-48, eng] 44-768
- Ice management: auxiliary propulsion and maneuvering system. [1988, p.10,17, eng] 44-1687
- Unconventional power sources for ice control at locks and dams. Nakato, T., et al, [1989, p.107-126, eng] 44-1771
- Proceedings. [1989, 245p., eng] 44-2017
- Research on ice problems related to the operation of hydro power in Sweden. Billfalk, L., [1989, p.26-35, eng] 44-2020
- Model studies on ice control structures in the Dunakiliti reservoir. Décsi, E., et al, [1989, p.36-45, eng] 44-2021
- Ice problems and ice research in Norway. Tesaker, E., [1989, p.233-245, eng] 44-2039
- Arctic and Antarctic development. Byford, A.N., [1990, p.39-49, eng] 44-2205
- Concept design of hybrid ice trap structure (HITS). Inoue, K., et al, [1987, p.299-304, jpn] 44-2542
- Ice control methods. Izumi, K., et al, [1987, p.339-345, jpn] 44-2549
- Freezeup dynamics of a frazil ice screen. Axelsson, K.D., [1990, 8p., eng] 44-2762
- Technical measures for reduction of ice damage. Carstens, T., et al, [1987, p.231-240, eng] 44-3314
- Ice control by regulation of the fresh water discharge into sea water. Gjerp, S.A., et al, [1988, p.137-145, eng] 44-3320
- Experience with a new type of model ice. Enkvist, E., [1984, p.J/1-J/15, eng] 44-3458
- Revised navigation control system for CASPPR based on ice regimes. Lapp, D.J., et al, [1990, p.V/1-V/15, eng] 44-3483
- Salmon River ice jam control studies: interim report. Axelsson, K.D., et al, [1990, 8p., eng] 44-3754
- See *also*: Ice prevention
- Ice cores
- Analysis of a 290-year net accumulation time series from Mt. Logan, Yukon. Holdsworth, G., et al, [1989, p.71-79, eng] 44-174
- Pre-Incan agricultural activity recorded in dust layers in two tropical ice caps. Thompson, L.G., et al, [1988, p.763-765, eng] 44-287
- Densification and porosity of glacier ice. Lipenkov, V.I.A., et al, [1989, p.49-58, rus] 44-335
- Empirical functions for atmospheric aerosol size distribution. Ram, M., et al, [1989, p.351-353, eng] 44-455
- Climatic ice core records from Qinghai-Tibetan Plateau. Thompson, L.G., et al, [1989, p.474-477, eng] 44-493
- Study of natural environment in the area around the Korean antarctic station, King George Island (II). [1989, 485p., kory] 44-762
- Very old sea ice and brackish ice, Ward Hunt Ice Shelf. Jeffries, M.O., et al, [1989, p.553-564, eng] 44-1015
- Ice core ionic concentrations determined by dielectric stratigraphy. Moore, J.C., et al, [1989, p.1177-1180, eng] 44-1069
- Dating of snow/ice cores by means of instrumental analyses. Fujii, Y., et al, [1989, p.156-190, jpn] 44-1469
- Prolonged anabiosis for sporogenous bacteria in the interior of the Central Antarctic Glacier. Abyzov, S.S., et al, [1989, p.566-571, eng] 44-1473
- Snow freezes moments in time. Koerner, R.M., et al, [1988, p.1-5, eng] 44-1534
- Implications of the Vostok core dust record. Petit, J.R., et al, [1990, p.56-58, eng] 44-1537
- Siple Coast firm and ice studies: conclusion and prospects. Alley, R.B., et al, [1988, p.58-59, eng] 44-1693
- Ice-core records and ozone depletion—potential for a proxy ozone record. Mayewski, P.A., et al, [1988, p.64-68, eng] 44-1698
- Proxy climate record from glaciochemical study in Victoria Land. Mayewski, P.A., et al, [1988, p.68-69, eng] 44-1699
- Isotopic oxygen-18 results from blue-ice areas. Grootes, P.M., et al, [1988, p.70, eng] 44-1700
- Biogenic particles in antarctic ice cores and the source of antarctic dust. Burckle, L.H., et al, [1988, p.71-72, eng] 44-1701
- Volcanic ash layers in blue ice fields. Koebert, C., [1988, p.93-94, eng] 44-1746
- Search for the Tunguska event in the antarctic snow. Rocchia, R., et al, [1988, p.156-157, eng] 44-1747

- Proceedings of the NIPR Symposium on Polar Meteorology and Glaciology, No.2. Kawaguchi, S., ed., 1989, 182p., eng. 44-1799
- Glaciological characteristics of cores drilled on Jostedalbreen, southern Norway. Kawamura, T., et al., 1989, p.152-160, eng. 44-1813
- Origin of non-sea-salt sulphate in the Mount Logan ice core. Monaghan, M.C., et al., 1990, p.245-248, eng. 44-1849
- Crystalline structure of the Vostok ice core. Lipenkov, V.I.A., et al., 1989, p.392-398, eng. 44-1901
- Ice core update 1980-1989. Permafrost data workshop. Brennan, A.M., ed., 1989, 127p., eng. 44-2047
- Summer climate recorded in a high-arctic ice core. Koerner, R.M., et al., 1990, p.630-631, eng. 44-2103
- Tropical climate variability recorded in ice cores of Peru. Thompson, L.G., et al., 1989, p.15-31, eng. 44-2106
- Climate and chronology of Antarctica and adjacent South America over the past 30,000 yr. Heusser, C.J., 1989, p.31-37, eng. 44-2385
- Paleovariations of carbon dioxide in antarctic ice cores. Semiletov, I.P., et al., 1989, p.196-199, rus. 44-2606
- Crystallographic structure of the natural air-hydrate in Greenland Dye-3 deep ice core. Hondoh, T., et al., 1990, p.17-24, eng. 44-2771
- Long-term climatic and environmental records from antarctic ice. Lorius, C., et al., 1989, p.11-16, eng. 44-2781
- Climatic changes in tree rings, coral, ice cores, and marine varves. Baumgartner, T.R., et al., 1989, p.1-14, eng. 44-2941
- Origins and variations of nitrate in south polar precipitation. Legrand, M.R., et al., 1990, p.3493-3507, eng. 44-3068
- Century old record of lead-210 fallout on the Greenland ice sheet. Nijampurkar, V.N., et al., 1990, p.29-38, eng. 44-3416
- Core drilling with semi-automatic borehole tools on hoist cable. Vasil'ev, N.I., 1989, p.51-58, rus. 44-3494
- Volume relaxation of ice from Vostok Station borehole. Lipenkov, V.I.A., et al., 1989, p.59-72, rus. 44-3495
- Proceedings of the NIPR Symposium on Polar Meteorology and Glaciology, No.3. Kawaguchi, S., ed., 1990, 114p., eng. 44-3544
- Total gas content of ice core from Mizuho Station. Kameda, T., et al., 1990, p.51-57, eng. 44-3547
- Ice-core record of atmospheric methane over the past 160,000 years. Chappellaz, J., et al., 1990, p.127-131, eng. 44-3579
- Dominant Range ice core characteristics, Antarctica. Mayewski, P.A., et al., 1990, p.11-16, eng. 44-3716
- US global ice core research program West Antarctica and beyond. Grootes, P.M., et al., 1989, 32p., eng. 44-3738
- Chemical and structural properties of sea ice in the southern Beaufort Sea. Meese, D.A., 1990, p.32-35, eng. 44-3813
- Sediment in Eurasian arctic sea ice. Wollenburg, I., et al., 1990, p.102-106, eng. 44-3828
- Surface layer ice core records from Wilkes Land. Qin, D.H., et al., 1990, p.460-466, eng. 44-3914
- Depletion of hydrogen peroxide in a Greenland ice core. Lai, P., et al., 1990, p.45-48, eng. 44-4036
- Climate record of last 6000 years in an ice core from Spitsbergen. Fujii, Y., et al., 1990, p.85-89, eng. 44-4167
- Ice core 520-year temperature record. Graf, W., et al., 1990, p.90-93, eng. 44-4168
- Ice core 1400 y oxygen isotope history. Grootes, P.M., et al., 1990, p.94-98, eng. 44-4169
- Estimates of ice sheet thinning from antarctic ice cores. Kameda, T., et al., 1990, p.131-135, eng. 44-4178
- Volcanic record (1869-1984) and climate in a Greenland ice core. Lyons, W.B., et al., 1990, p.176-182, eng. 44-4188
- Ice chemistry and dielectric profiling. Moore, J.C., et al., 1990, p.195-198, eng. 44-4192
- Little Ice Age record from Siple Station. Mosley-Thompson, E., et al., 1990, p.199-204, eng. 44-4193
- Identification of global volcanic horizons in ice ash. Palais, J.M., et al., 1990, p.216-220, eng. 44-4197
- Seasonal variation of isotopes in ice cores. Satow, K., et al., 1990, p.256-260, eng. 44-4205
- Glacial stage ice-core records from the Dundee Ice Cap, China. Thompson, L.G., et al., 1990, p.288-297, eng. 44-4212
- Climatic record from an ice margin in East Antarctica. Yao, T.D., et al., 1990, p.323-327, eng. 44-4219
- Global climatic change from the Vostok ice core. Jouzel, J., et al., 1989, p.13-24, eng. 44-4254
- Atmospheric chemicals in a Greenland ice core. Mayewski, P.A., et al., 1990, p.354-356, eng. 44-4259
- Density measurements of ice cores by X ray computed tomography. Kawamura, T., 1990, p.12,407-12,412, eng. 44-4424
- Studies on the BHQ ice core from the Law Dome, Antarctica. Huang, M., et al., 1990, p.20-26, eng. 44-4550
- Ice coring drills
- Subice suction corer for sampling epontic ice algae. Welch, H.E., et al., 1988, p.562-568, eng. 44-1863
- Ice cover
- Winter cover of a high-mountain Mediterranean lake (Estany Redó, Pyrenees). Catalan, J., 1989, p.519-527, eng. 44-6
- Numerical simulation of ice cover formation in rivers—Finnish River Ice Project. Maunula, M., et al., 1988, p.253-267, eng. 44-254
- Discrimination between snow and clouds using remote sensing. Chen, X.Z., et al., 1988, p.94-99, chi. 44-640
- Antarctic mosaic compiled from DMSP imagery. Scharfen, G.R., 1989, p.302, eng. 44-663
- Frazil and anchor ice and their role in ice cover development. Gosink, J.P., et al., 1989, 430p., eng. 44-718
- Understanding ice and its behavior in marinas. Wortley, C.A., 1985, 2p., eng. 44-1065
- Sea ice simulations. Loewe, P., 1987, 49p., eng. 44-1234
- Effect of Danube dams on ice regime. Starosolszky, O., 1989, p.222-232, eng. 44-2038
- Vertical structure and dynamics of the ocean's subglacial layer. Timokhov, L.A., ed., 1989, 141p., rus. 44-2628
- Thermal effect of power plants on an aqueous medium. Braslavskii, A.P., et al., 1989, 251p., rus. 44-2802
- 150 MHz coherent radar system. Moore, R.K., et al., 1989, p.42-47, eng. 44-3358
- Evidence of recent changes in global snow and ice cover. Barry, R.G., 1990, p.121-127, eng. 44-3393
- Structure of ice algal assemblages from the Gulf of St. Lawrence. De Séve, M.A., et al., 1990, p.780-788, eng. 44-3701
- Fracture and breakup of river ice cover. Beltaos, S., 1990, p.173-183, eng. 44-3702
- Problems of modern hydrology. Shiklomanov, I.A., ed., 1989, 327p., rus. 44-3908
- Applications of ISES for snow, ice, and sea state. Chang, A.T.C., et al., 1990, p.189-196, eng. 44-3949
- Impact of global warming on Great Lakes ice cycles. Assel, R.A., 1989, p.5/1-5/30, eng. 44-4251
- Light reflection and transmission by sea ice covers. Perovich, D.K., 1990, p.9557-9567, eng. 44-4264
- Antarctica: past and future glaciations. Miagkov, S.M., 1989, 159p., rus. 44-4337
- Ice cover distribution
- See also: Ice conditions; Sea ice distribution
- Ice cover effect
- Effects of an ice cover on a backwater or M-1 profile. Stanford, H.S., et al., 1988, p.303-312, eng. 44-257
- On the satellite retrieval of aerosol optical thickness over polar regions. Kergomard, C., et al., 1989, p.707-710, eng. 44-276
- Effect of ice and meteorological conditions on true seals. Timoshenko, I.U.K., 1986, p.177-182, eng. 44-277
- Long waves in channels with an ice cover. Debol'skaya, E.I., 1989, p.425-432, eng. 44-285
- Significance of ice-covers for planktonic algae. Müller-Haeckel, A., et al., 1989, p.174-177, eng. 44-323
- Submarine warfare in the Arctic: option or illusion. Sakitt, M., 1988, 93p., eng. 44-823
- Seasonal development of ice algae. Welch, H.E., et al., 1989, p.1793-1804, eng. 44-998
- Hydrodynamic forces in ice covered sea during earthquake. Kiyokawa, T., et al., 1989, p.153-160, eng. 44-1114
- Durability of coated steel in sea ice regions. Katoh, H., et al., 1989, p.213-220, eng. 44-1116
- Evolution of wave packets in three-wave interaction in a heavy liquid under an ice cover. Marchenko, A.V., et al., 1988, p.872-879, eng. 44-1517
- Propagation of long nonlinear waves in a ponderable fluid beneath an ice sheet. Il'ichev, A.T., et al., 1989, p.73-79, eng. 44-1519
- Sedimentation history of Terra Nova Bay region. Krissak, L.A., 1988, p.104-106, eng. 44-1706
- Phytoplankton seasonal changes at the Weddell Sea ice edge. Fryxell, G.A., 1989, p.1-18, eng. 44-1797
- Phytoplankton: dominants, life stages and indicators. Fryxell, G.A., et al., 1988, p.129-131, eng. 44-1905
- Ice cover effect on the hydraulics of impoundment reservoirs. Majewski, W., 1987, 132p., pol. 44-1940
- Climate sensitivity to continental ice sheet size and configuration. Shinn, R.A., et al., 1989, p.1517-1537, eng. 44-1947
- Water temperature and ice cover in the impounding reservoir. Baginaka, M., et al., 1989, p.1-14, eng. 44-2018
- Influence of the evaporation assessment method on the heat exchange during winter period. Jurak, D., 1989, p.93-106, eng. 44-2026
- Unsteady flow in open channels with ice cover. Majewski, W., et al., 1989, p.143-151, eng. 44-2031
- Ice drift and momentum exchange in winter antarctic pack ice. Martinson, D.G., et al., 1990, p.1741-1755, eng. 44-2360
- Recent arctic shelf foraminifera: seasonally ice covered vs. perennially ice covered areas. Schröder-Adams, C.J., et al., 1990, p.8-36, eng. 44-2435
- Modelling water temperature beneath river ice covers. Marsh, P., 1990, p.36-44, eng. 44-3000
- Boundary layer under fast ice. Shirasawa, K., et al., 1989, p.90-102, jpn. 44-3128
- Arctic ocean acoustics in CEAREX. Baggeroer, A.B., 1989, p.2-3, eng. 44-3133
- Ambient noise studies in the arctic basin. Bourke, R.H., et al., 1989, p.4-6, eng. 44-3134
- High frequency acoustical properties of saline ice. Jezek, K.C., et al., 1989, p.9-23, eng. 44-3135
- Ice penetrating arctic oceanographic buoy (AOB). Selsor, H.D., 1989, p.101-103, eng. 44-3140
- Arctic USW torpedo G&C program. Ingram, R.D., 1989, p.152-153, eng. 44-3146
- Arctic Submarine Experimental Pool. Oblinger, L.P., 1989, p.244-246, eng. 44-3150
- LCAC arctic design initiative. Ehrhardt, J.P., 1989, p.371-391, eng. 44-3158
- Use of lake water temperature and ice cover as climatic indicators. Robertson, D.M., 1990, 355p., eng. 44-3270
- Offshore and onshore wind velocities over ice in Hudson Bay. Larouche, P., 1990, p.55-59, eng. 44-3513
- Report on improving the accuracy of winter flow observations. Hiragaki, T., et al., 1989, p.39-44, jpn. 44-3588
- Decadal oscillations of the air-ice-ocean system in the Northern Hemisphere. Ikeda, M., 1990, p.106-139, eng. 44-3603
- Arctic-antarctic primary production and energy flow comparison studies. Fukuchi, M., et al., 1990, p.102-112, eng. 44-3743
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- Cavitating fluid sea ice model. Flato, G.M., et al., 1990, p.239-242, eng. 44-3858
- Assessment of hydraulic structures in a stream after seasonal ice run. Calkins, D.J., et al., 1989, 12p., eng. 44-3923
- Wave processes under sea ice cover. Korobeinikov, V.P., et al., 1990, p.151-152, eng. 44-4083
- Arctic ecosystems, sea ice and global warming. Alexander, V., et al., 1990, p.206-211, eng. 44-4116
- Isotopic peculiarities of meteoric water in polar regions. Wetzel, K., 1990, p.11-13, eng. 44-4161
- Flow resistance under an ice cover. Pavlov, S.I.A., et al., 1988, p.28-33, rus. 44-4220
- Snow-sea-ice parameterization in an atmospheric general circulation model. Meehl, G.A., et al., 1990, p.283-306, eng. 44-4278
- Oil spills in arctic regions. Sandkvist, J., 1989, p.1281-1296, eng. 44-4430
- Internal waves under arctic pack ice: the coherence structure. Levine, M.D., 1990, p.7347-7357, eng. 44-4473
- Satellite observations of the ice cover of regions of the Okhotsk Sea. Wakatsuchi, M., et al., 1990, p.13,393-13,410, eng. 44-4544
- Ice cover strength
- Characteristics of thermal breaking of a heterogeneous ice cover. Appel, I.L., 1988, p.99-107, rus. 44-183
- Strength and energy balance of decaying river ice. Prowse, T.D., et al., 1988, p.293-301, eng. 44-256
- Evaluating ice resistance mathematical models. Glen, I.F., et al., 1989, 107p., eng. 44-399
- Role of ice interaction due to floe collisions in marginal ice zone dynamics. Lu, Q.M., et al., 1989, p.14,525-14,537, eng. 44-454
- Interaction of ice fields with offshore structures. Vershinin, S.A., 1983, 23p., eng. 44-606
- Ice cover bending due to ship motion. Levit, B.M., et al., 1969, 4p., eng. 44-607
- Breakup of antarctic fast ice. Crocker, G.B., et al., 1989, p.61-76, eng. 44-829
- Ice mechanics at intermediate strain rate. Blair, S.C., 1988, p.1-9, eng. 44-1124
- Ship ice breaking dynamics and level ice resistance testing. Vol.1. Voelker, R.P., et al., 1985, 52p., eng. 44-1280
- Ship icebreaking dynamics and level ice resistance testing. Vol.2. Voelker, R.P., et al., 1985, 302p., eng. 44-1281
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- Theoretical investigation of the icebreaking cycle in 2-D. Valanto, P., 1990, p.111-126, eng. 44-2214
- Crowd induced deflection of a lake ice cover. Sinha, N.K., 1990, p.161-167, eng. 44-2220
- Bearing capacity of ice floes and interaction with piles. Oshima, T., 1985, p.130-132, jpn. 44-2383
- Deflections of floating ice sheets subjected to moving vehicles. Takizawa, T., 1985, p.133-137, jpn. 44-2384
- Method for the estimation of ice loads. Kawasaki, T., et al., 1985, p.138-143, jpn. 44-2385
- Estimation of permeability coefficient of sea ice. Okuhara, N., et al., 1986, p.142-147, jpn. 44-2455
- Triaxial compression tests on saline ice. Kato, K., et al., 1986, p.148-153, jpn. 44-2456

Ice cover strength (cont.)

- Indentation tests of laboratory and field ice sheets. Kawasaki, T., et al. [1986, p.154-159, jpn] 44-2457
- Safety of traffic on floating ice sheet. Sasaki, K., et al. [1986, p.192-200, jpn] 44-2463
- Study on fracture modes and ice loads of flat ice plates. Taguchi, Y., et al. [1987, p.333-338, jpn] 44-2548
- Permeability coefficient of sand- and gravel-bearing sea ice. Saeki, H., et al. [1988, p.289-296, jpn] 44-2696
- Adfreeze bond strength between ice and various materials. Saeki, H., et al. [1988, p.306-313, jpn] 44-2698
- Compressive and flexural strength of ice. Maeda, T., et al. [1989, p.364-369, jpn] 44-2900
- Flexural strength of ice and crack size distribution. Lal, M., [1989, 106p., eng] 44-3108
- Transient model of visco-icy layer caused by solid indentation on ice. Shih, L.Y., [1989, p.299-309, eng] 44-3117
- Ice failure and icebreaker bow form. Newbury, S., [1989, 5p. + append., eng] 44-3180
- Model tests of a cylindrical structure in ice. Newbury, S., [1989, 6p. + append., eng] 44-3193
- Parametric study of icebreaking bow forms. Carter, D., [1990, 87p., eng] 44-3198
- Compressive strength of sea ice sheets. Timco, G.W., et al. [1990, p.227-240, eng] 44-3296
- Modelling of flexural-gravitational waves in continuous ice cover. Kozin, V.M., [1989, 4p., eng] 44-3732
- Modeling of flexural-gravity waves in continuous ice cover. Levshchikov, L.P., [1989, 5p., eng] 44-3733
- On a frequency analysis of ice impacts. Javanainen, M., [1989, 8p., eng] 44-3735
- Failure modes observed during river ice breakup. Prowse, T.D., et al. [1989, p.237-241, eng] 44-4020
- Hydraulically actuated test frame for the field determination of ice flexural properties. Demuth, M.N., et al. [1989, p.242-246, eng] 44-4021
- Notes on icebreaking with air cushion vehicles. Carter, D., [1989, p.5-23, eng] 44-4133
- Beaufort and Chukchi Sea ice motion part 2—onset of large scale Chukchi Sea ice breakout. Reimer, R.W., et al. [1979, 92p., eng] 44-4139
- Calculating the breakup of a river ice cover. Kozitskii, I.E., [1989, p.17-28, rus] 44-4400
- Coastal sea ice deformations. Erlingsson, B., [1989, p.1335-1347, eng] 44-4433
- Dynamic and thermodynamic sea ice model for subpolar regions. Lu, Q.M., et al. [1990, p.13,433-13,457, eng] 44-4547
- See also: Ice strength
- Ice cover thickness**
- Thin ice growth. Ashton, G.D., [1989, p.564-566, eng] 44-7
- Two-dimensional simulation of electrothermal deicing of aircraft components. Wright, W.B., et al. [1989, p.554-562, eng] 44-41
- Airborne electromagnetic sensing of sea ice thickness. Becker, A., et al. [1987, 77p., eng] 44-207
- Causes of interannual variability in the sea ice cover of the eastern Bering Sea. Niebauer, H.J., et al. [1989, p.45-59, eng] 44-296
- East antarctic sea ice zone: ice characteristics and drift. Allison, I., [1989, p.103-115, eng] 44-301
- Features of thermal destruction of inhomogeneous ice cover. Appel, I.L., [1988, p.65-71, eng] 44-523
- Sea ice conditions in the Arctic Ocean. Wadhams, P., [1987, p.83-94, eng] 44-599
- Ice cover bending due to ship motion. Levit, B.M., et al. [1969, 4p., eng] 44-607
- Ice thickness changes on Lake Hoare, southern Victoria Land, Antarctica. Simmons, G.M., Jr., et al. [1989, p.235-236, eng] 44-658
- Sand/ice interactions and sediment deposition in ice-covered lakes. Simmons, G.M., Jr., et al. [1989, p.237-240, eng] 44-659
- Calculation of the effects of ice on the backscatter of a ground plane. Lambert, K.M., et al. [1988, 55p., eng] 44-671
- Measurements of infrared emissivity of thin sea ice. Aota, M., et al. [1988, p.187-195, jpn] 44-739
- Salinity and crystal structure of sea ice near a river mouth. Aota, M., et al. [1988, p.197-211, jpn] 44-740
- Ice thickness data, winter 1985-1986. [1989, 80p., eng] 44-745
- Electromagnetic induction remote sensing of sea ice thickness. Echert, D.C., [1986, 47p., eng] 44-787
- Fracture toughness of columnar freshwater ice. Bentley, D.L., et al. [1989, p.7-20, eng] 44-826
- Arctic ice-ocean dynamics. Hibler, W.D., III, [1989, p.47-91, eng] 44-983
- Snow and ice: remote sensing applications in civil engineering. Östrem, G., [1985, p.151-163, eng] 44-1047
- Under-ice thickness distribution of the Arctic Basin. McLaren, A.S., [1988, p.133-149, eng] 44-1135
- Keel depth in sea ice, Bohai Gulf, China. Deng, S.Q., [1988, p.151-162, eng] 44-1136
- Temporal variation of freezing degree days in Danish domestic waters. Christensen, F.T., [1988, p.201-206, eng] 44-1139
- Ship ice breaking dynamics and level ice resistance testing. Vol.1. Voelker, R.P., et al. [1985, 52p., eng] 44-1280
- Ship icebreaking dynamics and level ice resistance testing. Vol.2. Voelker, R.P., et al. [1985, 302p., eng] 44-1281
- Growth of Greenland ice sheet: interpretation. Zwally, H.J., [1989, p.1589-1591, eng] 44-1374
- Ground base I. Vainio, J., [1988, p.31-40, eng] 44-1425
- Microwave measurements of ice and snow. Hallikainen, M.T., et al. [1988, p.69-83, eng] 44-1427
- Ground data for area IV. Leppäranta, M., [1988, p.103-106, eng] 44-1429
- River-ice mounds on Alaska's North Slope. Arcone, S.A., et al. [1989, p.288-290, eng] 44-1558
- Ice regime of rivers in the USSR. Donchenko, R.V., [1987, 246p., rus] 44-1718
- Net mass balance of Cray Ice Rise. Bindschadler, R.A., et al. [1989, p.370-377, eng] 44-1898
- Age-depth profile in the upper part of a steady-state ice sheet. Reeh, N., [1989, p.406-417, eng] 44-1903
- Rare second year—lake ice cover in the Canadian High Arctic. Adams, W.P., et al. [1989, p.299-306, eng] 44-1932
- Model of sea ice cover in the arctic basin. Makhshtas, A.P., et al. [1988, p.96-116, rus] 44-1939
- Ice cover effect on the hydraulics of impoundment reservoirs. Majewski, W., [1987, 132p., pol] 44-1940
- Level ice resistance of USCGC Polar Sea in Antarctica. Voelker, R.P., et al. [1988, 94p., eng] 44-1944
- Water temperature and ice cover in the impounding reservoir. Baginska, M., et al. [1989, p.1-14, eng] 44-2018
- Influence of some environmental factors on the evolution of river ice covers. Kolodko, J., [1989, p.116-121, eng] 44-2028
- Method of study and analysis of ice jam development. Mayer, I., [1989, p.179-188, eng] 44-2034
- Characteristics of ridges in Northumberland Strait. Brown, T.G., et al. [1990, p.293-299, eng] 44-2238
- Measurement of sea ice thickness using electromagnetic induction. Holladay, J.S., et al. [1990, p.309-315, eng] 44-2240
- Estimation of the maximal ice thickness in Ogawara Lake. Hirayama, K., et al. [1986, p.138-141, jpn] 44-2454
- Airborne electromagnetic sensing of sea ice thickness. Final report. Becker, A., et al. [1988, 129p., eng] 44-2653
- Meteorological data from Polish antarctic station "H. Arctowski" for 1987. Niemiec, J., et al. [1989, p.251-254, eng] 44-2739
- Meteorological data from Polish antarctic station "H. Arctowski" for 1988. Baranski, A., et al. [1989, p.255-258, eng] 44-2740
- Velocity, heat budget and mass balance, Anvers Island ice cap. Casassa, G., [1989, p.341-352, eng] 44-2765
- Ice conditions for navigation in the Pacific Ocean ice massif in winter. Smirnov, V.I., [1989, p.56-64, rus] 44-2823
- Instrumental simultaneous determination of ship speed and ice cover characteristics. Tarashevich, V.N., et al. [1989, p.100-108, rus] 44-2829
- Accumulation of water in the ice cover of the Krasnoyarsk reservoir. Kosmakov, I.V., et al. [1989, p.69-80, rus] 44-2935
- Radio echo sounding, north Victoria Land ice sheet. Engelhardt, H., et al. [1989, p.111-117, eng] 44-3050
- Meteorite finds near Frontier Mountain. Delisle, G., et al. [1989, p.483-513, eng] 44-3054
- Ice conditions at Rusakaya Station in 1980-1981. Bulatov, L.V., [1989, p.115-119, rus] 44-3075
- Sonar measurement of sea ice thickness. Hudson, R., [1990, p.135-137, eng] 44-3116
- Penetration of floating ice sheets with cylindrical indentors. Sodhi, D.S., et al. [1989, p.104, eng] 44-3141
- Recent progress in Navy sea ice forecast modeling. Preller, R.H., [1989, p.125-139, eng] 44-3144
- Cost-effective ice penetrator. Thomas, E.V., et al. [1989, p.141-149, eng] 44-3145
- Ice penetrator development program. Ferrario, M.T., [1989, p.186-222, eng] 44-3148
- Rapid thermal ice penetration system. Andersen, J.K., [1989, p.224-242, eng] 44-3149
- Proposed tactical investigation of a model arctic submarine. Richardson, C., [1989, p.249-259, eng] 44-3151
- Electro-expulsive system for ice removal. Haslim, L., et al. [1989, p.292-302, eng] 44-3155
- Hull forms for U.S. Navy surface ship ice transit. Milano, V.R., [1989, p.314-370, eng] 44-3157
- Sea ice thickness measurement. Kovacs, A., et al. [1989, p.394-424, eng] 44-3159
- Ice strength estimates from submarine topsounder data. DiMarco, R., et al. [1989, p.425-426, eng] 44-3160
- Ice thickness measurement. Wallerstedt, R., [1989, p.427-450, eng] 44-3161
- Ice thickness radar measurements during CEAREX. Onstott, R.G., et al. [1989, p.451-460, eng] 44-3162
- Passive microwave remote sensing of sea ice thickness. Swift, C.T., [1989, p.461-462, eng] 44-3163
- Evaluation of state-of-the-art drilling platform ice accretion models. Brown, R.D., et al. [1988, p.131-136, eng] 44-3319
- Studies of sea ice thickness from submarine and aircraft. [1989, 34p. + append., eng] 44-3374
- Submarine sonar measurement of ice bottom surface. Wadhams, P., et al. [1989, 5p., eng] 44-3375
- Concurrent remote sensing of arctic sea ice from submarine and aircraft. Wadhams, P., et al. [1989, 20p., eng] 44-3376
- Algorithm for extraction of ice-thickness data from short pulse radar signals. Riek, L., et al. [1990, p.137-145, eng] 44-3394
- Hull girder minimum section modulus of large merchant ice breakers. Huther, M., et al. [1984, p.C/1-C/8, eng] 44-3452
- Continuous motion of a ship in ridged ice. Tunik, A.L., [1984, p.M/1-M/9, eng] 44-3461
- Effect of ice friction on ship resistance. Williams, F.M., et al. [1990, p.B/1-B/7, eng] 44-3466
- Ice class upgrading of M.V. Arctic. Luce, M.P., [1990, p.K/1-K/9, eng] 44-3473
- Probabilistic analysis of summer impact loads on arctic offshore structures. Tunik, A.L., et al. [1990, p.N/1-N/10, eng] 44-3476
- Revised navigation control system for CASPPR based on ice regimes. Lapp, D.J., et al. [1990, p.V/1-V/15, eng] 44-3483
- Ice load criteria for arctic vessels. Churcher, A.C., et al. [1990, p.W/1-W/32, eng] 44-3484
- Nearshore Great Lakes ice cover. Bolsenga, S.J., [1988, p.99-105, eng] 44-3502
- Sea ice thickness versus impulse radar time-of-flight data. Kovacs, A., et al. [1990, p.91-98, eng] 44-3543
- Total gas content of ice core from Mizuho Station. Kameda, T., et al. [1990, p.51-57, eng] 44-3547
- Constraints on the subsurface structure of Europa. Golombek, M.P., et al. [1990, p.441-452, eng] 44-3581
- Laboratory measurements of optical beams in young sea ice. Schoonmaker, J.S., et al. [1989, p.1606-1613, eng] 44-3625
- Ice thickness data—winter 1986-1987. [1990, 59p., eng] 44-3773
- Two-dimensional mapping of sea-ice keels with airborne electromagnetics. Liu, G., et al. [1990, p.239-248, eng] 44-3780
- Snow cover effects on antarctic sea ice thickness. Ackley, S.F., et al. [1990, p.16-21, eng] 44-3810
- Simulation of the ice ridging process. Hopkins, M.A., et al. [1990, p.152-156, eng] 44-3840
- Airborne sea ice thickness sounding. Kovacs, A., et al. [1990, p.225-229, eng] 44-3855
- Ice thickness and brightness temperature for sea ice. Eppler, D., et al. [1990, p.229-232, eng] 44-3856
- Sea ice model forced with GCM atmosphere. Loewe, P., [1990, p.251-255, eng] 44-3861
- Warming effect of meridional sea ice transport on climate. Ledley, T.S., [1990, p.256-258, eng] 44-3862
- Estimation of drag coefficient and ice thickness. McPhee, M.G., [1990, p.281-284, eng] 44-3865
- Radar ice thickness gauge. Klein, G.S., et al. [1989, p.58-73 (Pertinent p.67-68), rus] 44-3909
- Sea ice in the polar regions. Gow, A.J., et al. [1990, p.47-122, eng] 44-3976
- Could arctic ice be thinning. McLaren, A.S., et al. [1990, p.762, eng] 44-4034
- Evidence for thinning of the arctic ice cover north of Greenland. Wadhams, P., [1990, p.795-797, eng] 44-4035
- Arctic Sea ice and its variability. Barry, R.G., [1990, p.91-101, eng] 44-4073
- Sea ice thickness and cloud optics. Curry, J.A., et al. [1990, p.43-46, eng] 44-4159
- On a simple sea-ice dynamics model for climate studies. Flato, G.M., et al. [1990, p.72-77, eng] 44-4165
- Meridional sea-ice transport and its impact on climate. Ledley, T.S., [1990, p.141-143, eng] 44-4180
- Milankovitch solar radiation variations and sea ice thickness. Ledley, T.S., [1990, p.144-147, eng] 44-4181
- Estimating oceanic heat flux from sea ice thickness. Wettlaufer, J.S., et al. [1990, p.315-318, eng] 44-4217
- Reaction of arctic ice to CO2 warming of the atmosphere. Zakharova, O.K., [1989, p.57-64, rus] 44-4222
- Development of an airborne sea ice thickness measurement system and field test results. Kovacs, A., et al. [1989, 47p., eng] 44-4265
- Coupled sea ice-mixed layer simulations for the southern ocean. Stössel, A., et al. [1990, p.9539-9555, eng] 44-4332
- Late Quaternary glacial history of the South Orkney Plateau. Herron, M.J., et al. [1990, p.265-275, eng] 44-4336
- Radar surveying of the bottom surface of ice covers. Arcone, S.A., et al. [1990, p.30-39, eng] 44-4468
- See also: Glacier thickness
- Ice cracks**
- Sound generated by propagating cracks in sea ice. Farmer, D.M., et al. [1989, p.1489-1500, eng] 44-136

- Fracture toughness of columnar freshwater ice. Bentley, D.L., et al. (1989, p.7-20, eng). **44-826**
- Fractography of ice. Schulson, E.M., et al. (1989, p.1193-1194, eng). **44-1511**
- Ice-wedge cracks, western Arctic coast. McKay, J.R., (1989, p.365-368, eng). **44-1873**
- Internal cracking and brittle fracture of compressed ice. Schulson, E.M., et al. (1989, p.378-382, eng). **44-1899**
- Amplification of acoustic waves during rapid crystallization. Nesterov, A.I., et al. (1988, p.103-104, eng). **44-2056**
- Finite element calculations of ice pressure on rigid structures. Derradji-Aouat, A., et al. (1990, p.75-81, eng). **44-2209**
- Ice structure interface model for crushing with extrusion. Marcellus, R.W., et al. (1990, p.95-101, eng). **44-2212**
- Fracture toughness of porous ice with and without particles. Smith, T.R., et al. (1990, p.241-246, eng). **44-2230**
- Fracture experiments on S2 columnar freshwater ice. DeFranco, S.J., et al. (1990, p.247-252, eng). **44-2231**
- Notch acuity effects on the fracture toughness of freshwater ice. Wei, Y., et al. (1990, p.253-257, eng). **44-2232**
- Crack nucleation in polycrystalline ice. Wu, M.S., et al. (1990, p.273-282, eng). **44-2235**
- Flexural strength of ice and crack size distribution. Lal, M., (1989, 106p., eng). **44-3108**
- Crack nucleation due to elastic anisotropy in polycrystalline ice. Shyam Sunder, S., et al. (1990, p.29-47, eng). **44-3538**
- Constraints on the subsurface structure of Europa. Golombek, M.P., et al. (1990, p.441-452, eng). **44-3581**
- Fracture and breakup of river ice cover. Beltaos, S., (1990, p.173-183, eng). **44-3702**
- Double torsion test applied to fine grained and freshwater columnar ice and sea ice. Parsons, B.L., et al. (1988, 12p., eng). **44-3950**
- Mathematical modelling of deformation mechanisms in ice. Santaoja, K., (1990, 215p. + append., eng). **44-3958**
- Ice creep**
- Polycrystalline ice creep under hydrostatic pressure. Mizuno, Y., et al. (1988, p.1-13, jpn). **44-727**
- Resurvey of Byrd Station drill hole. Hansen, B.L., et al. (1989, p.1-6, eng). **44-825**
- Pressuremeter test of frozen ground and ice mechanics. Lemoigne, Y., et al. (1988, p.75-87, eng). **44-1130**
- On the creep properties of field-retrieved sprayed ice. Spencer, P.A., et al. (1988, p.539-550, eng). **44-1171**
- Finite element calculations of ice pressure on rigid structures. Derradji-Aouat, A., et al. (1990, p.75-81, eng). **44-2209**
- Creep buckling analysis of a floating ice sheet moving against a structure. Luk, C.H., (1990, p.103-110, eng). **44-2213**
- Creep and relaxation behavior of floating ice structures. Kenny, J., et al. (1990, p.183-193, eng). **44-2223**
- Compressive properties of sea ice in a harbour in Liaodong Gulf. Li, Z.J., et al. (1990, p.259-263, eng). **44-2233**
- Is minimum creep rate a fundamental material property. Sinha, N.K., (1990, p.283-288, eng). **44-2236**
- In situ determination of creep properties of sea ice with the pressuremeter. Murat, J.R., et al. (1989, p.575-594, eng). **44-2644**
- Crystall growth in deformed polycrystalline ice during stress relaxation. Mizuno, Y., (1989, p.1-12, jpn). **44-3122**
- Expected sea-level rise from climatic warming in the Antarctic. Budd, W.F., (1988, p.74-82, eng). **44-3356**
- Creep rates of spray ice. Shields, D.H., et al. (1990, p.185-194, eng). **44-3626**
- Pressuremeter creep testing in ice: calibration and test procedures. Kjartansson, B.H., et al. (1990, p.3-9, eng). **44-4147**
- Ice crossings**
- Winter bridging exercise on thick ice: Fort McCoy, Wisconsin, 1988. Coutermarsh, B.A., (1990, 24p., eng). **44-3957**
- Ice crystal adhesion**
- Algae concentrated by frazil ice. Garrison, D.L., et al. (1989, p.313-316, eng). **44-1489**
- Surface influence on adhesion of ice. Igoshin, V.A., et al. (1989, p.111-114, eng). **44-3010**
- Ice crystal collision**
- Charge transfer during single crystal interaction with a rimed target. Kumar, P.P., et al. (1989, p.13,099-13,102, eng). **44-450**
- Charge transfer in thunderstorms and the surface melting of ice. Baker, M.B., et al. (1989, p.770-776, eng). **44-1862**
- Mass transfer during ice particle collisions in planetary rings. McDonald, J.S.B., et al. (1989, p.167-179, eng). **44-3969**
- Ice crystal growth**
- Antifreeze glycoproteins: physical, chemical, and functional properties. Feeney, R.E., et al. (1989, p.215-217, eng). **44-33**
- Physical processes in polar stratospheric ice clouds. Toon, O.B., et al. (1989, p.11,359-11,380, eng). **44-73**
- Balloon borne atmospheric observations in the north polar vortex. Rosen, J.M., et al. (1989, p.791-794, eng). **44-362**
- Transition limits for water-droplet crystallization with the NASA Lewis icing nozzle. Marek, C.J., (1989, p.887-888, eng). **44-377**
- Charge transfer during single crystal interaction with a rimed target. Kumar, P.P., et al. (1989, p.13,099-13,102, eng). **44-450**
- Charge transfer during multiple large ice crystal interactions with a riming target. Keith, W.D., et al. (1989, p.13,103-13,106, eng). **44-44**
- Aggregation processes in spatially homogeneous clouds. Gaeva, Z.S., (1989, p.25-29, rus). **44-809**
- Forward scattering spectrometer probe in NASA's icing tunnel. Hovenac, E.A., et al. (1988, 11p., eng). **44-953**
- Ice crystallization in water drops and on surfaces. Zhao, W.H., (1989, 104p., eng). **44-1021**
- Snow clones. Vogel, S., (1989, p.52-54, eng). **44-1093**
- Growth instabilities of the ice-water interface. Yeh, Y., (1982, 45p., eng). **44-1228**
- Ice crystal growth instabilities at ice water interface. Yeh, Y., (1982, 45p., eng). **44-1274**
- Convective motion in dendritic growth. Hallett, J., et al. (1987, 126p., eng). **44-1293**
- Water droplet crystallization in icing spray. Marek, C.J., et al. (1987, 20p., eng). **44-1294**
- Aggregation of ice crystals in cirrus. Kajikawa, M., et al. (1989, p.3108-3121, eng). **44-1301**
- Study on frost formation. Saito, H., et al. (1984, p.76-88, eng). **44-1335**
- Frost growth in cylindrical tubes located outdoors. Monaghan, P.F., et al. (1988, p.963-972, eng). **44-1375**
- Frost formation of tube-array evaporators in a fluidized bed. Aihara, T., et al. (1988, p.973-980, eng). **44-1376**
- Mathematical model of frost formation on a flat plate. Sherif, S.A., et al. (1988, p.301-306, eng). **44-1421**
- Development of aligned columnar sea ice: a field investigation. Stander, E., et al. (1989, p.217-223, eng). **44-1549**
- X-ray topography of dislocation in ice crystals. Shearwood, C., et al. (1989, p.281-283, eng). **44-1557**
- Antarctic stratospheric ice crystals. Goodman, J., et al. (1989, p.16,449-16,457, eng). **44-1624**
- Why does ice grow faster from salt water than from fresh water. Barduhn, A.J., et al. (1987, p.99-106, eng). **44-1786**
- Ice crystallization developments for the butane direct-contact process. Wiegandt, H.F., et al. (1987, p.107-126, eng). **44-1787**
- Fresh water from the sea, a new process. Maguire, J.B., (1987, p.155-162, eng). **44-1789**
- Bacterial nucleation of ice in plant leaves. Hirano, S.S., et al. (1986, p.730-738, eng). **44-1821**
- Dendritic growth of an elliptical paraboloid with forced convection in the melt. Ananth, R., et al. (1989, p.575-593, eng). **44-1872**
- Antifreeze glycoproteins: structure-function studies. Feeney, R.E., et al. (1988, p.136-138, eng). **44-1906**
- Water crystallization in capillary-porous media. Posenko, L.S., et al. (1989, p.36-41, rus). **44-2149**
- Thermodynamics of ice formation during freezing of biological cells. Toner, M., et al. (1990, p.1582-1593, eng). **44-2398**
- Formation of ice crystals on a nonuniform surface. Gorbunov, B.Z., et al. (1989, p.848-853, rus). **44-2570**
- Heterogeneous ice nucleation on small particles. Efimov, I.U.I.A., et al. (1989, p.1039-1041, eng). **44-2785**
- Dynamic light scattering at the ice-solution interface. Vesenska, J.P., (1989, 103p., eng). **44-3016**
- Effect of fluid flow on the development of preferred orientations in sea ice: laboratory experiments. Stander, E., et al. (1989, p.153-161, eng). **44-3098**
- Crystall growth in deformed polycrystalline ice during stress relaxation. Mizuno, Y., (1989, p.1-12, jpn). **44-3122**
- Transition layer on surface of ice crystal. Furukawa, Y., et al. (1987, p.665-677, eng). **44-3188**
- Role of adsorbed films on metal oxide surface in heterogeneous nucleation. Gorbunov, B.Z., et al. (1989, p.198-202, eng). **44-3260**
- Ice formation from supercooled water on metal oxides. Gorbunov, B.Z., et al. (1989, p.202-206, eng). **44-3261**
- Ice-forming activity of ultrasmall particles on silver iodide. Gorbunov, B.Z., et al. (1989, p.495-498, eng). **44-3348**
- Studies of cubic ice crystals. Final report. Finnegan, W.G., et al. (1989, 71p., eng). **44-3372**
- Synthesis and X-ray diffraction analysis of AgI-CuBr solid solutions for ice nucleation. Sivanesan, S., et al. (1990, p.263-265, eng). **44-3400**
- Mass-dimensional relationships for ice particles and the influence of riming on snowfall rates. Mitchell, D.L., et al. (1990, p.153-163, eng). **44-3419**
- Incorporation of stratospheric acids into water ice. Elliott, S., et al. (1990, p.425-428, eng). **44-3425**
- Formation characteristics of different types of atmospheric precipitation. Aver'ianov, V.G., (1989, p.80-91, rus). **44-3497**
- Comments on the prediction of ice crystal size distribution in a continuous crystallizer. Shirai, Y., et al. (1990, p.1147-1148, eng). **44-3535**
- Characteristic features of freezing of aqueous solutions. Lozinskii, V.I., et al. (1990, p.592-596, eng). **44-3596**
- Comparison of theory and experiment in formation of ice crystals on a nonuniform surface. Gorbunov, B.Z., et al. (1990, p.733-738, eng). **44-3597**
- Solidification of a binary solution on a cold isothermal surface. Braga, S.L., et al. (1990, p.745-754, eng). **44-3600**
- Light scattering at the surface of growing ice crystals. Mazur, P., et al. (1989, p.497-509, eng). **44-3693**
- Frost wall shielding for inertial confinement fusion. Neely, H.H., et al. (1990, 100p., eng). **44-3771**
- Origin and peculiarities of columnar type crystals in the atmosphere. Podzimek, J., (1989, p.99-108, eng). **44-4002**
- Morphology of optically anisotropic agarose hydrogel prepared by directional freezing. Yokoyama, F., et al. (1990, p.552-558, eng). **44-4498**
- Ice crystal nuclei**
- Antifreeze glycoproteins: structure-function studies. Feeney, R.E., et al. (1988, p.136-138, eng). **44-1906**
- H₂O grain size and the amount of dust in Mars' residual north polar cap. Kieffer, H.H., (1990, p.1481-1493, eng). **44-2294**
- Formation of ice crystals on a nonuniform surface. Gorbunov, B.Z., et al. (1989, p.848-853, rus). **44-2570**
- Effect of organic ice-forming compounds on the freezing temperature of a water-oil emulsion. Arkharov, A.V., et al. (1989, p.1172-1174, rus). **44-2574**
- Evidence for small ice particles in a cold cirrus cloud. Platt, C.M.R., et al. (1989, p.11,151-11,164, eng). **44-2753**
- Estimates of precipitation embryo densities using measurements from an aircraft radar. Mather, G.K., (1989, p.1089-1097, eng). **44-2759**
- Ice crystal optics**
- Infrared absorption features for tetrahedral ammonia ice crystals. West, R.A., et al. (1989, p.220-223, eng). **44-902**
- Scattering properties of horizontally oriented ice crystal columns in cirrus cloud. Pt.1. Rockwitz, K.D., (1989, p.4103-4110, eng). **44-1838**
- Evidence for small ice particles in a cold cirrus cloud. Platt, C.M.R., et al. (1989, p.11,151-11,164, eng). **44-2753**
- Light scattering at the surface of growing ice crystals. Mazur, P., et al. (1989, p.497-509, eng). **44-3693**
- Ice crystal replicas**
- Automatic close-up system of snow particles. Fujiyoshi, Y., et al. (1988, p.231-235, jpn). **44-743**
- Aggregation of ice crystals. Kumar, P.P., (1989, p.382-387, eng). **44-1259**
- Ice crystal size**
- Infrared absorption features for tetrahedral ammonia ice crystals. West, R.A., et al. (1989, p.220-223, eng). **44-902**
- Antarctic stratospheric ice crystals. Goodman, J., et al. (1989, p.16,449-16,457, eng). **44-1624**
- Stratospheric cloud particle measurements from solar absorption spectra. Kinne, S., et al. (1989, p.16,481-16,491, eng). **44-1625**
- Ice crystallization developments for the butane direct-contact process. Wiegandt, H.F., et al. (1987, p.107-126, eng). **44-1787**
- Fresh water from the sea, a new process. Maguire, J.B., (1987, p.155-162, eng). **44-1789**
- Numerical modeling of passive microwave O₂ observations over precipitation. Gasiewski, A.J., et al. (1990, p.217-235, eng). **44-4128**
- Ice crystal structure**
- Characteristics of Breid Bay first-year sea ice. Tison, J.L., et al. (1989, p.261-268, eng). **44-64**
- High-density structures and phase transition in an ionic model of H₂O ice. Demontis, P., et al. (1989, p.2716-2718, eng). **44-288**
- Polycrystalline ice creep under hydrostatic pressure. Mizuno, Y., et al. (1988, p.1-13, jpn). **44-727**
- Salinity and crystal structure of sea ice near a river mouth. Aota, M., et al. (1988, p.197-211, jpn). **44-740**
- Aggregation of crystals in spatially homogeneous clouds. Gaeva, Z.S., (1989, p.72-75, rus). **44-869**
- General report on mechanical properties of frozen soil. Andersland, O.B., (1989, p.433-441, eng). **44-919**
- Very old sea ice and blackish ice, Ward Hunt Ice Shelf. Jeffries, M.O., et al. (1989, p.553-564, eng). **44-1015**
- X-ray diffraction in glaciology. Hondoh, T., (1989, p.184-194, jpn). **44-1043**
- Snow clones. Vogel, S., (1989, p.52-54, eng). **44-1093**
- Compressive strength of low salinity sea ice, Gulf of Bothnia. Fransson, L.A., et al. (1988, p.21-29, eng). **44-1126**
- Effective approximate algorithm to predict the delayed elastic strain. Santaoja, K., (1988, p.31-43, eng). **44-1127**
- Failure maps for ice. Hallam, S.D., et al. (1988, p.45-55, eng). **44-1128**
- Ice and snow geophysics in area II. Leppäranta, M., et al. (1988, p.41-68, eng). **44-1426**

Ice crystal structure (cont.)

- Fractography of ice. Schulson, E.M., et al. (1989, p.1193-1194, eng) 44-1511
- Development of aligned columnar sea ice: a field investigation. Stander, E., et al. (1989, p.217-223, eng) 44-1549
- X-ray topography of dislocation in ice crystals. Shearwood, C., et al. (1989, p.281-283, eng) 44-1557
- Stratospheric cloud particle measurements from solar absorption spectra. Kinne, S., et al. (1989, p.16481-16491, eng) 44-1625
- Crystalline structure of the Vostok ice core. Lipenkov, V.I.A., et al. (1989, p.392-398, eng) 44-1901
- Light attenuation matrices for certain types of ice. Bogorodskii, V.V., et al. (1987, p.361-363, eng) 44-2058
- Cryogenic scanning electron microscopy in the Arctic and Antarctic. Lilly, M.R., et al. (1990, p.51-60, eng) 44-2206
- Finite element calculations of ice pressure on rigid structures. Derradji-Aouat, A., et al. (1990, p.75-81, eng) 44-2209
- Fracture experiments on S2 columnar freshwater ice. D. Franco, S.J., et al. (1990, p.247-252, eng) 44-2231
- Crack nucleation in polycrystalline ice. Wu, M.S., et al. (1990, p.273-282, eng) 44-2235
- Is minimum creep rate a fundamental material property. Sinha, N.K., (1990, p.283-288, eng) 44-2236
- Polycrystalline ice failure by gas pressure at pores. Ujihira, M., et al. (1990, p.336-341, jpn) 44-2702
- Crystallographic structure of the natural air-hydrate in Greenland Dye-3 deep ice core. Hondoh, T., et al. (1990, p.17-24, eng) 44-2771
- Crystal growth in deformed polycrystalline ice during stress relaxation. Mizuno, Y., (1989, p.1-12, jpn) 44-3122
- Models of the mechanical properties of ice. Richter-Menge, J.A., et al. (1989, p.87-99, eng) 44-3139
- Transition layer on surface of ice crystal. Furukawa, Y., et al. (1987, p.665-677, eng) 44-3188
- Studies of cubic ice crystals. Final report. Finnegan, W.G., et al. (1989, 71p, eng) 44-3372
- Crack nucleation due to elastic anisotropy in polycrystalline ice. Shyam Sunder, S., et al. (1990, p.29-47, eng) 44-3538
- Determination of the crystal structure of ice XI. Howe, R., et al. (1989, p.4450-4453, eng) 44-3619
- Conductivity by ionic defects in hydrogen-bonded chains. Gordon, A., (1989, p.1113-1115, eng) 44-3694
- Physical properties of sea ice from the Weddell Sea. Eicken, H., et al. (1990, p.28-32, eng) 44-3812
- Scattering and absorption of light by sea ice. Buckley, R.G., et al. (1990, p.49-52, eng) 44-3817
- Origin and peculiarities of columnar type crystals in the atmosphere. Podzimek, J., (1989, p.99-108, eng) 44-4002
- Vector analysis of ice petrographic data. Ferrick, M.G., et al. (1989, p.129-141, eng) 44-4006
- X-ray analysis of electron density distribution in ice Ih. Goto, A., et al. (1990, p.1412-1417, eng) 44-4270
- Monte Carlo study of melting of a model bulk ice. Han, K.K., (1989, 89p, eng) 44-4283
- Densification process within the near-surface layer of the antarctic ice sheet. Qin, D.H., (1990, p.10-19, eng) 44-4549
- Ice crystals**
- Crystal ice slurries for district cooling systems. Sukhwil, R.N., et al. (1987, p.444-448, eng) 44-17
- Interaction of polycrystalline ice spheres with ice crystals. Klimin, N.N., et al. (1988, p.126-129, rus) 44-68
- Stratospheric dehydration in winter-spring 1987. Kelly, K.K., et al. (1989, p.11317-11357, eng) 44-72
- Correlating ice crystal types with halo types. Tape, W., (1989, p.262-264, eng) 44-660
- Mechanics of damage in rate-sensitive construction materials. Sunder, W.C., et al. (1987, 120p, eng) 44-719
- Enhanced cold cloud clearing by pulsed CO2 lasers. Waggoner, A.P., et al. (1989, p.3039-3043, eng) 44-1196
- General equation for the terminal fall speed of solid hydrometeors. Böhm, H.P., (1989, p.2419-2427, eng) 44-1227
- Ice particle charge transfer studies. Saunders, C.P.R., (1987, 130p, eng) 44-1285
- Heterogeneous physicochemistry of the polar ozone hole. Turco, R.P., et al. (1989, p.16493-16510, eng) 44-1626
- Motions of ice crystals and water drops in the atmosphere. Nisbet, J.S., (1988, 63p, eng) 44-1721
- Light attenuation matrices for certain types of ice. Bogorodskii, V.V., et al. (1987, p.361-363, eng) 44-2058
- Role of water ice clouds in the Martian hydrologic cycle. James, P.B., (1990, p.1439-1445, eng) 44-2291
- Device for removal of solid impurities from liquid nitrogen. Brownridge, J.D., (1989, p.70-71, eng) 44-3082
- Elasticity of natural types of polycrystalline ice. Sinha, N.K., (1989, p.127-135, eng) 44-3096
- Notch-strengthening effect in fresh-water ice. Nixon, W.A., et al. (1990, p.107-111, eng) 44-3729
- JARE-29 meteorological research, 1988. Wada, M., et al. (1990, p.46-75, jpn) 44-3741
- "Cloudless" ice crystal precipitation in the polar regions. Curry, J.A., et al. (1989, p.80-83, eng) 44-4041
- Ice cutting**
- Planing machines for building runways on ice. Mellor, M., (1989, 8p. + attachments, eng) 44-225
- Mechanics of ice crushing by propeller blades. Beliaшов, V.A., et al. (1983, 10p, eng) 44-605
- Factors affecting rates of ice cutting with a chain saw. Coutermarsh, B.A., (1989, 14p, eng) 44-775
- Ice cutters for mobility of offshore drilling structures. Slocum, R.W., (1984, p.N/1-N/9, eng) 44-3462
- Design criteria for arctic vessels. Browne, R.P., (1990, p.AA/1-AA/9, eng) 44-3488
- Winter bridging exercise on thick ice: Fort McCoy, Wisconsin, 1988. Coutermarsh, B.A., (1990, 24p, eng) 44-3957
- Ice dams**
- Controls on sedimentation in a late Devonian ice-dammed lake, Achnashen, Scotland. Benn, D.I., (1989, p.31-42, eng) 44-83
- Jökullsluups from Strandline Lake, Alaska (especially the 1982 event). Sturm, M., et al. (1989, 19p, eng) 44-395
- Catastrophic outburst floods. Clague, J., (1987, p.18-21, eng) 44-1533
- Ice regime of rivers in the USSR. Donchenko, R.V., (1987, 246p, rus) 44-1718
- Peak discharge from ice-dammed Ape Lake, British Columbia. Desloges, J.R., et al. (1989, p.349-354, eng) 44-1896
- Inner structures and surface morphology of ice jams. Grzes, M., (1989, p.66-75, eng) 44-2024
- Study on jökullsluups (glacier outburst floods) of the Yarkant River. Chen, Y.N., et al. (1989, p.169-177, eng) 44-3167
- Observations on the drainage of an ice-dammed lake in West Greenland. Russell, A.J., et al. (1990, p.72-74, eng) 44-3724
- Ice dating**
- Pre-Incan agricultural activity, recorded in dust layers in two tropical ice caps. Thompson, L.G., et al. (1988, p.763-765, eng) 44-287
- Spruce annual rings and glacier oscillation, Terskei Ala-Tau. Solomina, O.N., et al. (1989, p.10-110, rus) 44-343
- Dating of snow/ice cores by means of instrumental analyses. Fujii, Y., et al. (1989, p.156-190, jpn) 44-1469
- Ice chronology at meteorite stranding sites. Fireman, E.L., (1988, n.49-50, eng) 44-1690
- Drilling on Cray Ice Rise, Antarctica. Bindschadler, R.A., et al. (1988, p.60-62, eng) 44-1695
- Geomorphology and glaciology of second highest dome in Queen Maud Land. Ageta, Y., et al. (1989, p.88-96, eng) 44-1805
- Dating the Mizuho 700-m core from core ice fabric data. Nakawo, M., et al. (1989, p.105-110, eng) 44-1807
- Glaciological characteristics of cores drilled on Jostedalssbreen, southern Norway. Kawamura, T., et al. (1989, p.152-160, eng) 44-1813
- Climatic change data inferred from a frozen lake in Arctic Canada. Blake, W., Jr., (1989, p.41-54, eng) 44-1856
- Uranium-series dating of tephra-banded Allan Hills ice. Fireman, E.L., (1989, p.335-343, eng) 44-2245
- Climate and chronology of Antarctica and adjacent South America over the past 30,000 yr. Heusser, C.J., (1989, p.31-37, eng) 44-2385
- Isotopic geochemistry of ice wedges. Vasil'chuk, I.U.K., (1990, p.154-157, rus) 44-2957
- Surface layer ice core records from Wilkes Land. Qin, D.H., et al. (1990, p.460-466, eng) 44-3914
- Age of Cray Ice Rise. Bindschadler, R.A., et al. (1990, p.13-16, eng) 44-4152
- Identification of global volcanic horizons in ice ash. Palais, J.M., et al. (1990, p.216-220, eng) 44-4197
- Origin and age of the "ice complex" in northern Western Siberia. Danilov, I.D., et al. (1990, p.72-77, rus) 44-4541
- Ice deformation**
- C-band SAR observations of marginal ice zone rheology in the Labrador Sea. Drinkwater, M.R., et al. (1989, p.522-534, eng) 44-406
- Polycrystalline ice creep under hydrostatic pressure. Mizuno, Y., et al. (1988, p.1-13, jpn) 44-727
- Mechanical properties and deformation of sea ice near shore. Shapiro, L.H., (1987, 263p, eng) 44-796
- Resurvey of Byrd Station drill hole. Hansen, B.L., et al. (1989, p.1-6, eng) 44-825
- Arctic ice-ocean dynamics. Hibler, W.D., III, (1989, p.47-91, eng) 44-983
- Analysis of dynamic penetration of Arctic Sea ice using energy partitioning. Swearingen, J.C., (1989, p.254-257, eng) 44-1199
- Fracture of multi-year sea ice under triaxial stress. Sammonds, P.R., et al. (1989, p.258-263, eng) 44-1200
- Sea ice deformation as a source of surface air aerosol. Nagurny, A.P., (1989, p.582-584, rus) 44-1374
- Sea ice at elastic, elasto-plastic and plastic stages of deformation. Gladkov, M.G., et al. (1989, 6p, eng) 44-1498
- Devices measuring deformations and stresses in ice fields. Smirnov, V.M., et al. (1989, 5p, eng) 44-1499
- Crowd induced deflection of a lake ice cover. Sinha, N.K., (1990, p.161-167, eng) 44-2220
- Dynamic analysis of a floating ice sheet undergoing vertical indentation. McGilvary, W.R., et al. (1990, p.195-203, eng) 44-2224
- Effect of specimen size on the bending strength of alluvium reinforced ice. Nixon, W.A., et al. (1990, p.217-222, eng) 44-2226
- Is minimum creep rate a fundamental material property. Sinha, N.K., (1990, p.283-288, eng) 44-2236
- Indentation tests of laboratory and field ice sheets. Kawasaki, T., et al. (1986, p.154-159, jpn) 44-2457
- Hull girder minimum section modulus of large merchant ice breakers. Huther, M., et al. (1984, p.C/1-C/8, eng) 44-3452
- Creep rates of spray ice. Shields, D.H., et al. (1990, p.185-194, eng) 44-3626
- Crevasse deformation and examples from Ice Stream B, Antarctica. Vornberger, P.L., et al. (1990, p.3-10, eng) 44-3715
- Is the antarctic ice sheet disintegrating. Kamb, B., (1990, p.4-13, eng) 44-3751
- W.F. Weeks Sea Ice Symposium, San Francisco, CA, Dec. 1988. Ackley, S.F., ed. (1990, 299p, eng) 44-3808
- Simulation of the ice ridging process. Hopkins, M.A., et al. (1990, p.152-156, eng) 44-3840
- Mathematical modelling of deformation mechanisms in ice. Santaja, K., (1990, 215p. + append., eng) 44-3958
- Sea ice deformations in the proximity of coasts. Erlingsson, B., (1990, p.129-137, eng) 44-4079
- Coastal sea ice deformations. Erlingsson, B., (1989, p.1335-1347, eng) 44-4433
- Ice density**
- Densification and porosity of glacier ice. Lipenkov, V.I.A., et al. (1989, p.49-58, rus) 44-335
- Formation and decomposition of air hydrates in glacier ice. Lipenkov, V.I.A., (1989, p.58-64, rus) 44-336
- Density and crevasses of glaciers. Ivanov, A.I., (1989, p.140-143, rus) 44-350
- Compressive strength of low salinity sea ice, Gulf of Bothnia. Fransson, L.A., et al. (1988, p.21-29, eng) 44-1126
- Siple Coast firm and ice studies: conclusion and prospects. Alley, R.B., et al. (1988, p.58-59, eng) 44-1693
- Dating the Mizuho 700-m core from core ice fabric data. Nakawo, M., et al. (1989, p.105-110, eng) 44-1807
- Transformation of low-density to high-density amorphous ice. Floriano, M.A., et al. (1989, p.7187-7192, eng) 44-1936
- Determining ice content of a fine ice slurry from density measurements. Dickey, L.C., et al. (1989, p.2033-2036, eng) 44-2006
- Density-functional theory for the freezing of water. Ding, K., et al. (1987, p.1698-1701, eng) 44-2115
- Structure of high-density amorphous water. II. Neutron scattering study. Bellissent-Funel, M.C., et al. (1987, p.2231-2235, eng) 44-2116
- Seasonal variations in porosity and density of ice in Yenisey Bay. Latalin, D.A., (1985, p.54-58, rus) 44-2373
- Density of natural ice accretions related to nondimensional icing parameters. Jones, K.F., (1990, p.477-496, eng) 44-3570
- Pressure induced amorphization of ice Ih. Tse, J.S., et al. (1990, p.3992-3994, eng) 44-3624
- Snow cover effects on antarctic sea ice thickness. Ackley, S.F., et al. (1990, p.16-21, eng) 44-3810
- Density measurements of ice cores by X ray computed tomography. Kawamura, T., (1990, p.12407-12412, eng) 44-4424
- Densification process within the near-surface layer of the antarctic ice sheet. Qin, D.H., (1990, p.10-19, eng) 44-4549
- Ice detection**
- Report of the International Ice Patrol in the North Atlantic: season of 1987. (1987, 132p, eng) 44-34
- Airplane instrument to detect ice particles. Jones, J.J., et al. (1989, p.545-551, eng) 44-112
- Enhancement of marine radar images of ice infested waters. Kahloun, F., et al. (1989, 37p. + append., eng) 44-203
- Field evaluation of TWC/Intera MARINE-VUE upgrades: final report. Gorman, R., (1989, 57p. + append., eng) 44-206
- Bibliography on ice and fog: detection and warning systems. (1988, 47p, eng) 44-1082
- Supercooled water and time sensor for cloud physics research. Nelson, L.D., (1985, 57p., eng) 44-1095
- Airborne radar observations. Johansson, R., et al. (1988, p.119-147, eng) 44-1431
- Evaluations of the Rosemount Icing Detector. Baumgardner, D., et al. (1989, p.971-979, eng) 44-1725
- Ice warning systems cut the cost of winter maintenance. Halverson, D., (1986, p.8-9, eng) 44-2061
- Advances in winter maintenance techniques. Farquhar, B., (1984, p.1631, eng) 44-2062

- Ice detection system for roads could save money and lives. Edwards, B.D., [1984, p.1626, eng] **44-2092**
- Cloud classification from satellite data using a fuzzy sets algorithm: a polar example. Key, J.R., et al, [1989, p.1823-1842, eng] **44-2392**
- Development of sensor detected road surface conditions. Masuda, H., et al, [1988, p.164-169, jpn] **44-2678**
- Studies on a practical use of pavement freezing detector. Takeichi, K., et al, [1989, p.579-584, jpn] **44-2919**
- Ice island detection and characterization with airborne synthetic aperture radar. Jeffries, M.O., et al, [1990, p.5371-5377, eng] **44-3279**
- Remote detection of aircraft icing. Decker, M.T., et al, [1986, 34p., eng] **44-3332**
- Development of an underwater frazil-ice detector. Daly, S.F., et al, [1990, p.77-82, eng] **44-3541**
- Overview of the current NASA program on aircraft icing research. Ranaudo, R.J., et al, [1988, p.1.977-1.994, eng] **44-4240**
- GFS 2000 icing detection system. Marc, J.L., [1990, p.30-33, fre] **44-4327**
- Ice distribution**
See /also: Ice conditions; Sea ice distribution
- Ice domes**
See /also: Pingos
- Ice drills**
Core drilling with semi-automatic borehole tools on hoist cable. Vasil'ev, N.I., [1989, p.51-58, rus] **44-3494**
- Ice edge**
AMERIEZ 1986: activities on board the R/V *Melville* and USCGC *Glacier*. Sullivan, C.W., et al, [1989, p.167-169, eng] **44-20**
AMERIEZ 1986: oceanic factors affecting seabird occurrence. Ainley, D.G., et al, [1989, p.172-173, eng] **44-22**
AMERIEZ 1986: phytoplankton at the Weddell Sea ice edge. Fryxell, G.A., et al, [1989, p.173-175, eng] **44-23**
AMERIEZ 1986: microzooplankton in the ice-edge zone. Garrison, D.L., et al, [1989, p.175-176, eng] **44-24**
AMERIEZ 1986: acoustic assessment of krill (*Euphausia superba*, Dana). Macaulay, M.C., et al, [1989, p.176-178, eng] **44-25**
AMERIEZ 1986: oceanographic conditions in the northwestern Weddell Sea ice zone. Muench, R.D., et al, [1989, p.179-181, eng] **44-26**
AMERIEZ 1986: nutrients and phytoplankton biomass in the ice-edge zone. Nelson, D.M., et al, [1989, p.182-183, eng] **44-27**
AMERIEZ 1986: photoadaptation of phytoplankton and light limitation of primary production. SooHoo, J.B., et al, [1989, p.185-187, eng] **44-28**
AMERIEZ 1986: microbial growth and metabolism in the marginal ice zone. Sullivan, C.W., et al, [1989, p.188-190, eng] **44-29**
Relation of water movement near shelf ice edge to air-sea variables. Chu, P.C., [1987, p.31-42, eng] **44-291**
Airborne SAR observations of ocean surface waves penetrating floating ice. Raney, R.K., et al, [1989, p.492-500, eng] **44-403**
Effect of ice pressure on marginal ice zone dynamics. Flato, G.M., et al, [1989, p.514-521, eng] **44-405**
Sea ice modeling relevant to the Labrador and Newfoundland shelves. Ikeda, M., [1989, p.535-540, eng] **44-407**
Seasonal ice margin data for Beaufort and Chukchi Seas. Carsey, F.D., et al, [1989, p.541-551, eng] **44-408**
Experiments and evaluations of rule based methods in image analysis. Niblack, W., et al, [1988, p.123-128, eng] **44-436**
Sea ice margins: a summary of physical phenomena. Muench, R.D., [1989, 51p., eng] **44-460**
Oceanographic observations in the Scotia Sea marginal ice zone, June-Aug 1988. Husby, D.M., et al, [1989, 70p., eng] **44-618**
Labrador Sea wave and ice measurements, Mar. 1987. Thomas, W.L., [1988, 34p., eng] **44-698**
Synthetic aperture radar in Marginal Ice Zone Experiment 1987. Shuchman, R.A., et al, [1988, 137p., eng] **44-701**
Numerical study of a mesoscale eddy interaction with an ocean front. Lumpkin, R.P., [1989, 97p., eng] **44-717**
Labrador ice margin experiment, 1987. Drinkwater, M.R., et al, [1989, p.335-342, eng] **44-763**
Radiometer observations in marginal ice zone experiment. Skagset, O., et al, [1988, 130p., eng] **44-840**
Atmospheric boundary layer in Greenland Sea marginal ice zone. Dinkler, K.L., [1988, 65p., eng] **44-843**
Variability of the ambient noise field associated with the ice zone. Biggs, K.P., [1988, 112p., eng] **44-857**
Ice edge studies aboard *Polar Sea*, Vol.1, environmental data. Zahn, P.B., et al, [1987, 275p., eng] **44-881**
Sediment transport and deposition in a temperate glacial fjord, Glacier Bay, Alaska. Cowan, E.A., [1989, 453p., eng] **44-963**
Arctic ice-ocean dynamics. Hibler, W.D., III, [1989, p.47-91, eng] **44-983**
Ice edge studies aboard *Polar Sea*, Vol.1, Environmental data. St John, J.W., et al, [1986, 487p., eng] **44-1075**
- Ice edge studies aboard *Polar Sea*, Vol.2: Ice milling. Coburn, J.L., et al, [1986, 215p., eng] **44-1076**
- Ice edge studies aboard *Polar Sea*, Vol.3: Personnel evacuation. St. John, J.W., et al, [1986, 88p., eng] **44-1077**
- Effects of time-dependent winds and ocean eddies on ice motion in a marginal ice zone. Barker, J.L., [1987, 53p., eng] **44-1080**
- Numerical model of mesoscale physical-biological interactions in the Fram Strait marginal ice zone. Niebauer, H.J., et al, [1989, p.16.151-16.175, eng] **44-1108**
- Mesoscale meteorology of the Norton Sound region. Kozo, T.L., [1988, p.163-181, eng] **44-1137**
- Ice conditions in the Soviet Arctic: trends of multi-year variations. Arikainen, A., [1988, p.215-220, eng] **44-1141**
- Ground data for area IV. Leppäranta, M., [1988, p.103-106, eng] **44-1429**
- Availability of Geosat data during the BEPERS Pilot Study. Ulanuer, L.M.H., [1988, p.161-165, eng] **44-1434**
- Summertime ice edge in the Chukchi Sea. Stringer, W.J., et al, [1987, 208p., eng] **44-1439**
- Atmospheric boundary layer in the marginal ice zone. Groeters, D.J., [1988, 11p., eng] **44-1446**
- Numerical investigation and self-similar solutions of the glacier-ocean interaction problem. Akhmedova, F.Kh., et al, [1987, p.679-683, eng] **44-1515**
- Acoustic ambient noise in the Arctic Ocean below the marginal ice zone. Buckingham, M.J., et al, [1988, p.583-598, eng] **44-1712**
- Ice eddy ambient noise. Johannessen, O.M., et al, [1988, p.599-605, eng] **44-1713**
- Phytoplankton seasonal changes at the Weddell Sea ice edge. Fryxell, G.A., [1989, p.1-18, eng] **44-1797**
- Phytoplankton: dominants, life stages and indicators. Fryxell, G.A., et al, [1988, p.129-131, eng] **44-1905**
- Ice-edge upwelling off the Newfoundland coast during LIMEX. Tang, C.L., et al, [1989, p.658-681, eng] **44-2045**
- Forecasting Bering Sea ice edge behavior. Pritchard, R.S., et al, [1990, p.775-788, eng] **44-2136**
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See /also: Ice sublimation
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Ice floes (cont.)

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- System NaCl-CaCl₂-H₂O: I. the ice liquidus at 1 atm total pressure. Oakes, C.S., et al., 1990, p.603-610, eng. 44-3365
- Fundamental characteristics of AC flashover on contaminated insulators covered with ice. Sato, M., et al., 1989, p.889-896, eng. 44-3434
- Formation and breakup of ice cover. Belfinson, M.M., 1989, 216p., rus. 44-3491
- Ammonium salts as inhibitors of ice nucleating activity of bacteria. Okada, K., et al., 1990, p.547-550, eng. 44-3582
- Isotope effect on the glass transition and crystallization of hyperquenched glassy water. Johari, G.P., 1990, p.6742-6746, eng. 44-3592
- Theoretical modeling of massive ice beds. Konrad, J.M., 1990, p.31-35, eng. 44-3640
- Movement of water, heat, and solutes in frost susceptible soils. Padilla, F., et al., 1990, p.43-49, eng. 44-3642
- Effect of convection on plug formation during cryogenic pipe freezing. Burton, M.J., et al., 1989, p.121-126, eng. 44-3700
- Synthesis of AgI-AgCl-CuI solid solutions for ice nucleation studies. Sivanesan, S., et al., 1990, p.129-133, eng. 44-3796
- Development and physical properties of sea ice in the Weddell Sea, Antarctica. Lange, M.A., 1990, p.22-28, eng. 44-3811
- Salt-water anchor ice formation. Kempema, E.W., et al., 1990, p.114-116, eng. 44-3832
- Attempt to measure deep saline outflow through Barrow Canyon. Roach, A.T., et al., 1990, p.287-290, eng. 44-3866
- Lagrangian modeling of the ice process: a first-echo case. Knight, C.A., et al., 1990, p.418-428, eng. 44-3875
- Climatic engineering. Coveney, D.B., 1990, p.70-70, eng. 44-3920
- Raman spectroscopic study of bulk water supercooled to -33°C. Hare, D.E., et al., 1990, p.25-33, eng. 44-3966
- NMR study of effects of ice-forming compounds on water-oil emulsions. Arkharov, A.V., et al., 1990, p.1016-1018, eng. 44-3972
- Effect of hydrostatic pressure and salinity on the stability of gas hydrates. Handa, Y.P., 1990, p.2652-2657, eng. 44-4137
- Overview of the current NASA program on aircraft icing research. Ransudo, R.J., et al., 1988, p.1977-1994, eng. 44-4240
- Experimental study of freeze-coating on a chilled axially moving wire. Cheung, F.B., et al., 1990, p.431-439, eng. 44-4244
- Analysis of ice formation with flow reversal for application to a water source heat pump. Aceves-Saborio, S.M., et al., 1989, p.27-35, eng. 44-4256
- Prevention of icing of gas turbine air-inlet lines. Bekhanov, V.P., et al., 1988, p.21-28, eng. 44-4272
- Heat transfer from a tube immersed in a fluidized bed with frosting. Torikoshi, K., et al., 1990, p.73-91, eng. 44-4470
- See *also*: Freezing; Icing; Sea water freezing; Spray freezing
- Ice formation indicators
- Interpreting satellite imagery. Cote, P., 1989, p.58-59, eng. 44-273
- Method of making ice with given physical properties. Petrov, I.G., et al., 1989, 11p., eng. 44-1497
- Ice free reaches
- See *also*: Polynyas
- Ice friction
- Semi-empirical ice resistance model, Vol. I. Lewis, J.W., et al., 1983, 126p., eng. 44-885
- Performance of trucks braking on ice. Ervin, R.D., et al., 1987, 201p., eng. 44-1096
- Ice abrasion of high-strength lightweight concretes. Hoff, G.C., 1989, p.583-590, eng. 44-1118
- Testing methods on sea ice-concrete sliding abrasion. Itoh, Y., et al., 1988, p.89-96, eng. 44-1131
- Concrete abrasion due to a movement of ice sheet. Asai, Y., et al., 1985, p.190-195, jpn. 44-2314
- Sea ice-concrete abrasion test. Asai, Y., et al., 1986, p.564-571, jpn. 44-2500
- Abrasion of concrete structures due to a movement of sea ice sheet. Itoh, Y., et al., 1988, p.297-305, jpn. 44-2697
- Abrasion of concrete by ice that contains sand. Itoh, Y., et al., 1989, p.432-436, jpn. 44-2910
- Effect of pressure on kinetic friction of ice. Tatinclaux, J.C., 1989, p.127-134, eng. 44-3020
- Study of the friction of ice. Molgaard, J., 1989, 19p., eng. 44-3183
- Abrasion of concrete by ice in arctic sea structures. Huovinen, S., 1989, p.39-49, eng. 44-3340
- BAFFIN—a dynamic ship/ice interaction model. Daley, C.G., 1984, p.F/1-F/8, eng. 44-3455
- Multi-modal ice-management system. Aker, C.M., 1984, p.G/1-G/16, eng. 44-3456
- Physical modelling of a first year ridge ramming event. Comfort, G., et al., 1990, p.A/1-A/24, eng. 44-3465
- Effect of ice friction on ship resistance. Williams, F.M., et al., 1990, p.B/1-B/7, eng. 44-3466
- Ice model tests for icebreaker design. Soininen, H., et al., 1990, p.C/1-C/11, eng. 44-3467
- Design of a new icebreaker. Molyneux, D., et al., 1990, p.E/1-E/11, eng. 44-3468
- See *also*: Metal ice friction; Plastics ice friction; Rubber ice friction; Wood ice friction
- Ice gouging
- See *also*: Ice scoring
- Ice growth
- Thin ice growth. Ashton, G.D., 1989, p.564-566, eng. 44-7
- Winter sea ice-atmosphere interaction in southern polar latitudes. Carleton, A.M., et al., 1989, p.87-101, eng. 44-300
- Grain metamorphism in polar nitrogen ice on Triton. Zent, A.P., et al., 1989, p.965-968, eng. 44-365
- Arctic sea ice: climatological distribution and methods of analysis. Smith, B.P., 1987, p.95-100, eng. 44-600
- Growth limits of rime ice accretion on fixed conductors. Skelton, P.L.I., et al., 1989, p.247-254, eng. 44-901
- Ice segregation on a microporous filter. Ozawa, H., et al., 1989, p.567-568, eng. 44-938
- On the freezing of sprayed sea water to produce artificial sea ice. Sackinger, W.M., et al., 1988, p.581-590, eng. 44-1175
- Ship icing from sea spray. Zakrzewski, W.P., et al., 1988, p.591-603, eng. 44-1176
- Ice accretion of wires on board of a ship. Zakrzewski, W.P., et al., 1988, p.605-615, eng. 44-1177
- Growth of Greenland ice sheet: interpretation. Zwally, H.J., 1989, p.1589-1591, eng. 44-1372
- Thermodynamic model of floating ice platform construction. Szilder, K., et al., 1988, p.225-233, eng. 44-1419
- Production and storage of ice for cooling buildings. Wubben, E.A., et al., 1989, p.338-344, eng. 44-1525
- Segregated ice growth on a microporous filter. Ozawa, H., et al., 1989, p.113-124, eng. 44-1815
- Some applications of a numerical model of floating sea ice platforms. Szilder, K., et al., 1990, p.61-66, eng. 44-2207
- Solidification around a cylinder in laminar cross flow. Chiang, H., et al., 1989, p.322-327, eng. 44-2389
- Computational study of formation dynamics and structure of amorphous ice condensates. Zhang, Q., et al., 1990, p.5004-5016, eng. 44-3275
- Acoustics and morphology of undeformed sea ice. Jezek, K.C., et al., 1990, p.67-75, eng. 44-3821
- Sea ice: a habitat for the foraminifer *Neogloboquadrina pachyderma*? Dieckmann, G., et al., 1990, p.86-92, eng. 44-3824
- Simulation of the ice ridging process. Hopkins, M.A., et al., 1990, p.152-156, eng. 44-3840
- Sea ice conditions due to meteorological effects in the Canada Basin. Maslanik, J.A., et al., 1990, p.181-184, eng. 44-3847
- Influence of snowcover on the growth of antarctic fast ice. Crocker, G.B., 1989, p.156-164, eng. 44-4008
- Ice growth on a ship's mast. Blackmore, R.Z., et al., 1989, p.1440-1453, eng. 44-4441
- See *also*: Ice accretion; Icing rate
- Ice hardness
- Ice pack rigidity and mobility characteristics. Lewis, J.K., et al., 1989, p.69-77, eng. 44-298
- Measurements of icing hardness. Schaefer, J.A., et al., 1989, p.89-93, eng. 44-832
- Ice heat flux
- Year of Bowen ratios over the frozen Beaufort Sea. Andreas, E.L., 1989, p.12,721-12,724, eng. 44-231
- Strength and energy balance of decaying river ice. Prowse, T.D., et al., 1988, p.293-301, eng. 44-256
- Loss of water from Phobos. Fanale, F.P., et al., 1989, p.287-290, eng. 44-387
- Arctic Ocean noise generation due to pack ice kinematics and heat fluxes. Lewis, J.K., et al., 1988, p.565-581, eng. 44-1711
- Isotopic estimation of heat flux through sea ice. Souchez, R., et al., 1990, p.270-272, eng. 44-4208
- Laboratory study of heat flux through coastal polynyas during frazil-ice production. Ushio, S., et al., 1990, p.298-300, eng. 44-4213
- Estimating oceanic heat flux from sea ice thickness. Wettlaufer, J.S., et al., 1990, p.315-318, eng. 44-4217
- Ice II-IX
- See *also*: High pressure ice
- Ice islands
- Sea ice conditions in the Arctic Ocean. Wadhams, P., 1987, p.83-94, eng. 44-599
- Arctic ice island and sea ice movements and mechanical properties. Sackinger, W.M., et al., 1987, 31p., eng. 44-722
- Design and construction of the Mars ice island. Funegard, D.G., et al., 1988, p.31-38, eng. 44-1013
- Offshore winds and pack ice movement episodes north of Ellesmere Island. Ahlins, K., et al., 1988, p.271-286, eng. 44-1145
- Deep ice penetrator. Rychnovsky, R., 1988, p.323-336, eng. 44-1150
- On the creep properties of field-retrieved sprayed ice. Spencer, P.A., et al., 1988, p.539-550, eng. 44-1171
- Construction and performance of the Kadluk 0-07 sprayed ice pad. Kemp, T.S., et al., 1988, p.551-564, eng. 44-1172
- Thermophysical properties of sea ice. Nazintsev, I.U.L., et al., 1988, 258p., rus. 44-1402
- Evaluating seismic data recorded from an ice island in the Arctic Ocean. Cox, T.P., 1987, 219p., eng. 44-1874
- Karluk ice island. Bugno, W., et al., 1990, p.9-17, eng. 44-2201
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- Relation of zonation of sponge communities to sea-level change in the arctic margin. Van Wagoner, N.A., et al., 1989, p.2341-2355, eng. 44-2275
- Ice island sampling and investigation of sediments—Field report 1988. Mosher, D.C., et al., 1988, 42p., eng. 44-2770
- Ice island field station—new features of Canadian Polar Margin. Hobson, G., 1989, p.833, 838-839, eng. 44-3081
- Ice island detection and characterization with airborne synthetic aperture radar. Jeffries, M.O., et al., 1990, p.5371-5377, eng. 44-3279
- Creep rates of spray ice. Shields, D.H., et al., 1990, p.185-194, eng. 44-3626
- Mountain barrier effects on ice island drift in a coastal ice zone. Lu, M., et al., 1990, p.163-168, eng. 44-3842
- Ice jams
- Development of a dynamic ice breakup control method for the Connecticut River near Windsor, Vermont. Fernick, M.G., et al., 1988, p.221-233, eng. 44-251
- Effect of an ice jam on the morphology of a river channel confluence. Bergeron, N., et al., 1988, p.191-196, fre. 44-749
- Dynamic transport of river ice. Tsai, S.M., 1989, 198p., eng. 44-976
- Improving the design of ice-resistant platforms in the Bohai Gulf. Li, T.K., et al., 1988, p.345-349, eng. 44-1152
- Method of making ice with given physical properties. Petrov, I.G., et al., 1989, 11p., eng. 44-1497
- Ice regime of rivers in the USSR. Donchenko, R.V., 1987, 246p., rus. 44-1718
- Research on ice problems related to the operation of hydro power in Sweden. Billfalk, L., 1989, p.26-35, eng. 44-2020
- Model studies on ice control structures in the Dunakiliti reservoir. Décai, E., et al., 1989, p.36-45, eng. 44-2021
- Inner structures and surface morphology of ice jams. Grzed, M., 1989, p.66-75, eng. 44-2024
- Some problems of the ice cover formation in the Wlodelawek reservoir. Grzed, M., 1989, p.76-92, eng. 44-2025
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- Method of study and analysis of ice jam development. Mayer, I., 1989, p.179-188, eng. 44-2034

Ice jams (cont.)

- Thermal and ice regimes of reservoirs and basins of power plants. Shatalina, I.N., et al, 1989, p.213-221, eng 44-2037
- Modelling bridge induced ice jams. Brown, T.G., et al, 1990, p.169-175, eng 44-2221
- Tree damage from river ice along the Grande Ronde River in Oregon. Filip, G.M., et al, 1989, p.211-213, eng 44-2278
- Total ice force on tower structure due to ice jamming. Takeuchi, T., et al, 1985, p.168-171, jpn 44-2310
- Study on bridge design for frozen rivers, Pt.2. Hara, F., et al, 1987, p.318-321, jpn 44-2345
- Hydrology of floods in Canada: a guide to planning and design. Watt, W.E., ed, 1989, 245p., eng 44-2763
- Ice jams and ice jam floods in the lower Vistula. Grzes, M., 1985, p.499-525, pol 44-2938
- Technical measures for reduction of ice damage. Carstens, T., et al, 1987, p.231-240, eng 44-3314
- Salmon River ice jam control studies: interim report. Axelsson, K.D., et al, 1990, 8p., eng 44-3754
- Ice jams on rivers: methods of study, calculation and forecasting. Buzin, V.A., et al, 1989, p.220-231, rus 44-3913
- Ice breakup of the Nashwaak River, New Brunswick. Prowse, T.D., et al, 1989, p.142-155, eng 44-4007
- Studies, calculations and predictions of the ice and thermal regime of surface waters. Buzin, V.A., ed, 1989, 120p., rus 44-4398
- Study on ice phenomena using hydraulic models of river sections. Bolotinikov, G.I., 1989, p.3-17, rus 44-4399
- Calculating ice jam water levels. Buzin, V.A., 1989, p.28-41, rus 44-4401
- Effect of runoff on the ice jam water level. Alekseenko, R.I.A., 1989, p.41-45, rus 44-4402
- Roughness coefficient of the bottom surface of ice jams. Filippov, A.M., 1989, p.46-54, rus 44-4403
- Results of calculations of ice jams in the equilibrium state. Buzin, V.A., 1989, p.54-62, rus 44-4404
- Ice jams on the Daugava River in the region of the Vaykulyana station. Pastors, A.A., 1989, p.63-74, rus 44-4405
- Methods for forecasting maximum ice jam water levels on the Neva River. Donchenko, R.V., et al, 1989, p.74-81, rus 44-4406
- Ice jams on rivers. Kosteliansets, B.A., 1990, p.18-20, rus 44-4479
- Ice lenses**
- Secondary frost heave in freezing soils. Fowler, A.C., 1989, p.991-1008, eng 44-531
- Some models related to fossil ice lenses on Mars. Costard, F., 1987, p.243-251, fre 44-1452
- Effects of frost heave on pollen accumulation rate. Wang, X.C., et al, 1989, p.223-229, chi 44-2417
- Conservation applications impacted by soil freeze thaw. Formanek, G.E., et al, 1990, p.108-112, eng 44-2972
- Relation between frost heave and specimen length. Akagawa, S., 1983, 6p., eng 44-3091
- Ice lens growth in partially frozen saturated soil. Ishizaki, T., et al, 1986, p.13-21, jpn 44-3186
- Ice lens growth in partially frozen saturated soil. Ishizaki, T., et al, 1987, p.69-79, jpn 44-3189
- Perelotoks in the low, isolated hills of Kazakhstan. Gorbunov, A.P., 1989, p.40-48, rus 44-3233
- Influence of freezing mode on frost heave characteristics. Konrad, J.M., 1988, p.161-175, eng 44-3507
- Ice lens orientation around a chilled buried pipe. Smith, S.L., et al, 1990, p.83-87, eng 44-3647
- Ice lenses and hydraulics in thawing soils. Dyke, L., et al, 1990, p.137-141, eng 44-3655
- Ice loads**
- Loads on shafts of river icebreakers. Chernov, S., et al, 1986, p.31, rus 44-330
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- Concrete-steel composite structures. Kouhi, J., et al, 1989, 174p., fin 44-464
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- Iceing of tall structures in the lowlands of the USSR. Glukhov, V.G., 1989, 141p., rus 44-761
- Response of ship propeller blades to ice loads. Spencer, P.A., et al, 1989, Var. p., eng 44-837
- Ice edge studies aboard Polar Sea, Vol.2, hull ice impact loads. St. John, J.W., 1987, 160p., eng 44-882
- Ice edge studies aboard Polar Sea, Vol.3, propeller ice loads. Meyer, J.R., et al, 1986, 350p., eng 44-883
- Proceedings of the Conference on Port and Ocean Engineering, 1987, 1988, 683p., eng 44-1123
- Effective approximate algorithm to predict the delayed elastic strain. Santaoja, K., 1988, p.31-43, eng 44-1127
- Failure maps for ice. Hallam, S.D., et al, 1988, p.45-55, eng 44-1128
- Field strength tests of multi-year ice using thin-walled flat jacks. Iyer, S.H., et al, 1988, p.57-73, eng 44-1129
- Shear box tests on broken ice. Wong, T.T., et al, 1988, p.97-107, eng 44-1132
- Profiling multiyear ice features. Harrington, M.G., et al, 1988, p.121-131, eng 44-1134
- Temporal variation of freezing degree days in Danish domestic waters. Christensen, F.T., 1988, p.201-206, eng 44-1139
- Prediction of multiyear ice impact loads utilizing Hans Island data. Walden, J.T., et al, 1988, p.311-322, eng 44-1149
- Full-scale measurement of sea ice forces on a jacket structure. Shi, Q.Z., et al, 1988, p.337-344, eng 44-1151
- Improving the design of ice-resistant platforms in the Bohai Gulf. Li, T.K., et al, 1988, p.345-349, eng 44-1152
- Wave-driven growler impact on platform columns. Spring, W., 1988, p.351-362, eng 44-1153
- New anti-ice type of articulated single-point mooring structure. Wang, Q.J., 1988, p.363-367, eng 44-1154
- Failure of ice sheets under transverse loads. Wierzbicki, T., et al, 1988, p.369-380, eng 44-1155
- Pilot experiment to measure arctic pack-ice driving forces. Crossdale, K.R., et al, 1988, p.381-395, eng 44-1156
- Probabilistic ice formation encounter and load analysis. Brown, T.G., et al, 1988, p.397-408, eng 44-1157
- Ice loads on a rigid structure with a compliant foundation. Frederking, R.M.W., et al, 1988, p.409-418, eng 44-1158
- Bearing capacity of the foundations of offshore structures. Sekiguchi, K., 1988, p.419-429, eng 44-1159
- Slope protection for gravel islands, Beaufort Sea. Hayley, D.W., et al, 1988, p.431-439, eng 44-1160
- Structure/seabed interaction of the SSDC/MAT. Baker, K.A., et al, 1988, p.441-450, eng 44-1161
- High-capacity moorings and anchors for floating arctic platforms. Gerwick, B.C., 1988, p.451-457, eng 44-1162
- Self-burying anchor. Fan, Y.L., et al, 1988, p.459-464, eng 44-1163
- Crack propagation on floating structures in ice-infested waters. Swamidass, A.S.J., et al, 1988, p.527-537, eng 44-1170
- Sea spray icing on marine structures. Vefsnmo, S., et al, 1988, p.571-579, eng 44-1174
- Ship icing from sea spray. Zakrzewski, W.P., et al, 1988, p.591-603, eng 44-1176
- Design of AIDA seaport, Chukchi Sea shore, Alaska. Guillermo, E.C., et al, 1988, p.603-660, eng 44-1180
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- Impact of a ship against ice cover. Segal, Z.B., 1989, 6p., eng 44-1185
- Analytical simulation of the composite ice wall. Corder, P.R., et al, 1989, p.174-180, eng 44-1197
- Icing hazards on supply vessels and stand-by boats. Horjen, I., et al, 1986, 87p., eng 44-1277
- Freezing process of water blocked in a capsule. Saito, A., et al, 1988, p.325-333, jpn 44-1369
- Nonlinear dynamic analysis of caisson-type offshore structures. Soufy, I.R., 1990, n.p., eng 44-1520
- Thermal and durability considerations for composite steel/concrete sandwich structures. Gerwick, B.C., Jr., et al, 1988, p.73-83, eng 44-1738
- Resistance of concrete to ice abrasion—a review. Hoff, G.C., 1988, p.427-455, eng 44-1740
- Interaction between an ice field and a system of cylindrical piles. Matakevich, D.G., et al, 1988, p.170-174, eng 44-1868
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- Ice research and engineering in Finland. Mänttinen, M., 1989, p.134-142, eng 44-2030
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- Ice problems and ice research in Norway. Tesaker, E., 1989, p.233-245, eng 44-2039
- Conference on offshore mechanics and arctic engineering, 9th, 1990, 339p., eng 44-2199
- Foundation performance of gravity base structures. McCarron, W.O., 1990, p.1-8, eng 44-2200
- Karluk ice island. Bugno, W., et al, 1990, p.9-17, eng 44-2201
- Exploration drilling and production in the Barents Sea. Löset, S., et al, 1990, p.25-30, eng 44-2203
- Finite element calculations of ice pressure on rigid structures. Derradji-Aouat, A., et al, 1990, p.75-81, eng 44-2209
- Analysis of stress distributions in an ice floe. Frederking, R.M.W., et al, 1990, p.83-87, eng 44-2210
- Tests of ice crushing on a flexible structure. Singh, S.K., et al, 1990, p.89-94, eng 44-2211
- Creep buckling analysis of a floating ice sheet moving against a structure. Luk, C.H., 1990, p.103-110, eng 44-2213
- Theoretical investigation of the icebreaking cycle in 2-D. Valanto, P., 1990, p.111-126, eng 44-2214
- Analysis of structural response to dynamic ice action. Kärrä, T., et al, 1990, p.135-142, eng 44-2216
- Study of ice shedding phenomenon on cables. Druetz, J., et al, 1990, p.143-148, eng 44-2217
- Field measurement of pack ice stresses. Comfort, G., et al, 1990, p.177-181, eng 44-2222
- Discussion of recent work to develop a more realistic pressure-area model for ice. Winkler, M.M., et al, 1990, p.231-235, eng 44-2228
- Compressive properties of sea ice in a harbour in Liaodong Gulf. Li, Z.J., et al, 1990, p.259-263, eng 44-2233
- Cyclic loading of saline ice: initial experimental results. Cole, D.M., 1990, p.265-271, eng 44-2234
- Is minimum creep rate a fundamental material property. Sinha, N.K., 1990, p.283-288, eng 44-2236
- Proceedings, 1985, 577p., jpn 44-2296
- Bearing capacity of ice floes and interaction with piles. Oshima, T., 1985, p.130-132, jpn 44-2303
- Deflections of floating ice sheets subjected to moving vehicles. Takizawa, T., 1985, p.133-137, jpn 44-2304
- Method for the estimation of ice loads. Kawasaki, T., et al, 1985, p.138-143, jpn 44-2305
- On the interaction of an ice sheet and a vertical structure. Kato, K., 1985, p.144-149, jpn 44-2306
- Ice forces on vertical cylindrical structures. Nakazawa, N., et al, 1985, p.150-155, jpn 44-2307
- Total ice force on a cluster of cylindrical piles. Takeuchi, T., et al, 1985, p.156-161, jpn 44-2308
- Ice forces acting on structures with inclined surfaces. Inoue, K., 1985, p.162-167, jpn 44-2309
- Total ice force on tower structure due to ice jamming. Takeuchi, T., et al, 1985, p.168-171, jpn 44-2310
- Review of experimental techniques for ice-structure interactions. Hirayama, K., 1985, p.178-183, jpn 44-2312
- Concrete abrasion due to a movement of ice sheet. Asai, Y., et al, 1985, p.190-195, jpn 44-2314
- Proceedings, 1986, 666p., jpn 44-2445
- Ice pressure distribution acting on vertical structures. Takeuchi, T., et al, 1986, p.160-165, jpn 44-2458
- Vertical ice forces and changes in water level. Tsuchiya, M., et al, 1986, p.166-171, jpn 44-2459
- Vertical ice forces and changes in water level. Tsuchiya, M., et al, 1986, p.172-177, jpn 44-2460
- Design of an observation tower in the Sea of Okhotsk. Yoshida, A., et al, 1986, p.178-184, jpn 44-2461
- On the design of bridge for river ice sheet (1). Hara, F., et al, 1986, p.185-191, jpn 44-2462
- Safety of traffic on floating ice sheet. Saeki, K., et al, 1986, p.192-200, jpn 44-2463
- Proceedings, 1987, 503p., jpn 44-2526
- Concept design of hybrid ice trap structure (HITS). Inoue, K., et al, 1987, p.299-304, jpn 44-2542
- Design of a concrete structure in icy waters. Ohmoe, H., et al, 1987, p.311-317, jpn 44-2544
- Study on bridge design for frozen rivers, Pt.2. Hara, F., et al, 1987, p.318-321, jpn 44-2545
- Investigations of ice ride-up observed at Lake Ogawara. Sakamoto, N., et al, 1987, p.322-326, jpn 44-2546
- Numerical experiment on ice indentation pressure. Kato, K., 1987, p.327-332, jpn 44-2547
- Study on fracture modes and ice loads of flat ice plates. Taguchi, Y., et al, 1987, p.333-338, jpn 44-2548
- Design requirement for ice forces. Wong, T.T., et al, 1989, p.524-535, eng 44-2642
- Proceedings, 1988, 676p., jpn 44-2666
- Abrasion of concrete structures due to a movement of sea ice sheet. Itoh, Y., et al, 1988, p.297-305, jpn 44-2697
- On the design of bridge for river ice sheet (3). Hara, F., et al, 1988, p.314-321, jpn 44-2699
- Effect of mountain glaciation on vertical movements and seismicity. Rodkin, M.V., 1989, p.130-140, rus 44-2748
- Proceedings, 1989, 645p., jpn 44-2839
- On the size effect of local ice pressures. Tozawa, S., et al, 1989, p.370-375, jpn 44-2901
- Outline of the design ice force estimating system. Kato, K., 1989, p.376-381, jpn 44-2902
- External forces on hybrid ice trap structure. Inoue, K., et al, 1989, p.382-386, jpn 44-2903
- Ice forces acting on fender piles. Nakazawa, N., et al, 1989, p.387-393, jpn 44-2904
- Bridge design for frozen rivers (Pt.4). Hara, F., et al, 1989, p.394-403, jpn 44-2905
- Friction between steel and ice at high pressure. Saeki, H., et al, 1989, p.404-409, jpn 44-2906
- Ice forces acting on water intake towers. Hojo, K., et al, 1989, p.421-431, jpn 44-2909
- Abrasion of concrete by ice that contains sand. Itoh, Y., et al, 1989, p.432-436, jpn 44-2910
- Dynamic response of narrow structures to ice crushing. Kärrä, T., et al, 1989, p.173-187, eng 44-3100
- Ice-structure interaction testing: a bibliography. Lau, M., 1989, 62p., eng 44-3109

- Pressure of an ice field on vertical supports during horizontal movements. Matskevich, D.G., et al, 1990, p.410-414, eng 44-3168
- Model tests of a cylindrical structure in ice. Newbury, S., 1989, 6p. + append. eng 44-3193
- Ice loads on ship bottoms. Barabanov, N.V., et al, 1982, p.9-11, rus 44-3207
- Method for calculating the resistance of ice to ship motion. Alekseev, I.U.N., et al, 1984, p.28-36, rus 44-3215
- Ship propellers and ice. Beliaшов, V.A., et al, 1984, p.36-43, rus 44-3216
- Ship propellers in ice. Beliaшов, V.A., et al, 1987, p.64-68, rus 44-3217
- Ice loads on ship engines. Andriushin, A.V., et al, 1989, p.69-75, rus 44-3218
- Compressive strength of sea ice sheets. Timco, G.W., et al, 1990, p.227-240, eng 44-3296
- Constitutive model for broken ice. Wong, T.T., et al, 1990, p.241-252, eng 44-3297
- Technical measures for reduction of ice damage. Caustens, T., et al, 1987, p.231-240, eng 44-3314
- Evaluation of state-of-the-art drilling platform ice accretion models. Brown, R.D., et al, 1988, p.131-136, eng 44-3319
- Ice—the major challenge for petroleum exploitation in the Barents Sea. Jørgensen, T.S., 1988, p.181-194, eng 44-3322
- Impact of ice on petroleum exploration in the Barents Sea. Løset, S., et al, 1988, p.195-206, eng 44-3323
- Abrasion of concrete by ice in arctic sea structures. Huovinen, S., 1989, p.39-49, eng 44-3340
- Construction in water: manual. Godes, E.G., et al, 1989, 527p. (Pertinent p.97-110, 439-448), rus 44-3360
- Conference on Icebreaking and Related Technologies, 3rd, Calgary, 1984, 1984, var.p., eng 44-3449
- Propulsion power of an ice-going tanker ship. Takekuma, K., et al, 1984, p.B/1-B/12, eng 44-3451
- Hull girder minimum section modulus of large merchant ice breakers. Huther, M., et al, 1984, p.C/1-C/8, eng 44-3452
- Damage due to ship collisions with icebergs. Aldwinckle, D.S., et al, 1984, p.D/1-D/14, eng 44-3453
- Ship-ice floe collision analysis. Matsushita, M., et al, 1984, p.E/1-E/13, eng 44-3454
- BAFFIN—a dynamic ship/ice interaction model. Daley, C.G., 1984, p.F/1-F/8, eng 44-3455
- Mobile offshore units operating in ice-infested waters. Nessim, M.A., et al, 1984, p.H/1-H/12, eng 44-3457
- System development for measurement of full scale ship ice impact forces. Ghoneim, G.A.M., et al, 1984, p.K/1-K/15, eng 44-3459
- Continuous motion of a ship in ridged ice. Tunik, A.L., 1984, p.M/1-M/9, eng 44-3461
- Steel and concrete in arctic structures. Maddock, W.J., et al, 1984, p.O/1-O/9, eng 44-3463
- Conference on Ships and Marine Systems in Cold Regions, 4th, 1990, 1990, var.p., eng 44-3464
- Results from the full scale testing of the new icebreaker Oden. Liljestrom, G., et al, 1990, p.F/1-F/9, eng 44-3469
- Probabilistic analysis of summer impact loads on arctic offshore structures. Tunik, A.L., et al, 1990, p.N/1-N/10, eng 44-3476
- Design method for icebreaker hull loads due to level icebreaking. St. John, J.W., et al, 1990, p.O/1-O/14, eng 44-3477
- Modeling of ice class shafting systems. Cowper, D.N.B., et al, 1990, p.P/1-P/22, eng 44-3478
- Arctic corrosion and its effects on the strength of icebreakers. Brown, T.G., et al, 1990, p.S/1-S/11, eng 44-3481
- Overview of the Canadian Arctic Shipping Pollution Prevention Regulations. McCallum, J.S., 1990, p.U/1-U/8, eng 44-3482
- Revised navigation control system for CASPPR based on ice regimes. Lapp, D.J., et al, 1990, p.V/1-V/15, eng 44-3483
- Ice load criteria for arctic vessels. Churcher, A.C., et al, 1990, p.W/1-W/32, eng 44-3484
- Strength requirements in the proposed CASPPR. Daley, C.G., 1990, p.X/1-X/13, eng 44-3485
- Materials aspects for arctic vessels. Tomin, M.J., 1990, p.Y/1-Y/10, eng 44-3486
- Subdivision and stability for arctic vessels. Kendrick, A., 1990, p.Z/1-Z/6, eng 44-3487
- Design criteria for arctic vessels. Browne, R.P., 1990, p.AA/1-AA/9, eng 44-3488
- Icebreaker midbody resistance—phase 2: beam variation. Baker, D., et al, 1990, 176p., eng 44-3769
- Abrasion of concrete by ice in arctic sea structures. Huovinen, S., 1990, 110p. + append., eng 44-3770
- Analysis of the composite ice wall. Corder, P.R., et al, 1990, p.21-39, eng 44-3798
- Class A prediction of arctic season performance—discussion and reply. Sladen, J.A., et al, 1990, p.299-302, eng 44-4281
- Proceedings. POAC 89. Vol.3, 1989, p.1188-1611, eng 44-4425
- Link across "Storebaelt": ice forces on the piers of the western bridge. Tryde, P., 1989, p.1202-1209, eng 44-4426
- Ice force measurements on a bridge pier in a small river. Sodhi, D.S., et al, 1989, p.1419-1427, eng 44-4439
- Ice forces measured by two-dimensional ice force panels. Wessels, E., et al, 1989, p.1428-1439, eng 44-4440
- Hull structure of the icebreaker "Oden". Lindberg, K., et al, 1989, p.1468-1485, eng 44-4443
- Ice loads on harbor structures. Smirnov, G.N., et al, 1990, p.27, rus 44-4480
- Ice loads on multi-pile supports. Afanas'ev, V.P., 1990, p.28-29, rus 44-4481
- Probabilistic evaluation of design iceberg collision. McTaggart, K.A., et al, 1990, p.85-101, eng 44-4489
- Ice makers
- Advanced energy transmission fluids for district heating and cooling. Kasza, K.E., et al, 1987, p.202-211, eng 44-15
- Fabrication of multiple-layer large ice block. Hudson, S.L., 1987, 26p., eng 44-1438
- Introduction of Mitsubishi snow to ice converter. Sakai, K., et al, 1988, p.530-535, jpn 44-2722
- Ice mechanics
- Younger Dryas-Preboreal moraines and deglaciation in southwestern Varmland, Sweden. Lundqvist, J., 1988, p.301-316, eng 44-80
- Late Weichselian/Devensian ice sheets in the North Sea and adjacent land areas. Nesje, A., et al, 1988, p.371-384, eng 44-82
- Controls on sedimentation in a late Devensian ice-dammed lake, Achansheen, Scotland. Benn, D.I., 1989, p.31-42, eng 44-83
- Hydrodynamic model of solid/ice interaction. Kurdiymov, V.A., et al, 1976, 10p., eng 44-189
- Long waves in channels with an ice cover. Debol'skaya, E.I., 1989, p.425-432, eng 44-285
- Ice pack rigidity and mobility characteristics. Lewis, J.K., et al, 1989, p.69-77, eng 44-298
- Instability and self-regulation of glacial areas. Mazo, V.L., 1989, p.3-25, rus 44-331
- Procedure for predicting propeller-ice interaction forces. Chernuka, M.W., et al, 1989, 263p., eng 44-391
- Effect of ice pressure on marginal ice zone dynamics. Flato, G.M., et al, 1989, p.514-521, eng 44-405
- C-band SAR observations of marginal ice zone rheology in the Labrador Sea. Drinkwater, M.R., et al, 1989, p.522-534, eng 44-406
- Risks from glacier hazards in the Swiss Alps. Haeblerli, W., et al, 1989, p.96-102, eng 44-555
- Mechanics of ice crushing by propeller blades. Beliaшов, V.A., et al, 1983, 10p., eng 44-605
- Interaction of ice fields with offshore structures. Vershinin, S.A., 1983, 23p., eng 44-606
- Ice cover bending due to ship motion. Levit, B.M., et al, 1969, 4p., eng 44-607
- Arctic ice island and sea ice movements and mechanical properties. Sackinger, W.M., et al, 1987, 31p., eng 44-722
- Design and construction of the Mars ice island. Funegard, D.G., et al, 1988, p.31-38, eng 44-1013
- Proceedings of the Conference on Port and Ocean Engineering, 1987, 1988, 683p., eng 44-1123
- Ice mechanics at intermediate strain rate. Blair, S.C., 1988, p.1-9, eng 44-1124
- Field strength tests of multi-year ice using thin-walled flat jacks. Iyer, S.H., et al, 1988, p.57-73, eng 44-1129
- Pressuremeter test of frozen ground and ice mechanics. Lemoigne, Y., et al, 1988, p.75-87, eng 44-1130
- Testing methods on sea ice-concrete sliding abrasion. Itoh, Y., et al, 1988, p.89-96, eng 44-1131
- Shear box tests on broken ice. Wong, T.T., et al, 1988, p.97-107, eng 44-1132
- Mesoscale meteorology of the Norton Sound region. Kozo, T.L., 1988, p.163-181, eng 44-1137
- Wind speed, ocean currents and sea ice drift, Beaufort Sea. Kozo, T.L., 1988, p.183-200, eng 44-1138
- Chukchi Sea ice motion 1981-82. Pritchard, R.S., et al, 1988, p.255-270, eng 44-1144
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- Movement of the drifting ice in Bohai Bay. Deng, S.Q., 1988, p.297-300, eng 44-1147
- Probabilistic ice formation encounter and load analysis. Brown, T.G., et al, 1988, p.397-408, eng 44-1157
- High-capacity moorings and anchors for floating arctic platforms. Gerwick, B.C., 1988, p.451-457, eng 44-1162
- On the creep properties of field-retrieved sprayed ice. Spencer, P.A., et al, 1988, p.539-550, eng 44-1171
- Construction and performance of the Kadluk 0-07 sprayed ice pad. Kemp, T.S., et al, 1988, p.551-564, eng 44-1172
- Selecting the most probable values of the mechanical properties of ice. Petrov, I.G., 1989, 32p., eng 44-1183
- Dynamics of the antarctic ice cap. Declair, H., et al, 1989, 51p., eng 44-1353
- Beaufort Sea mesoscale circulation study—final report. Aagaard, K., et al, 1989, 114p., eng 44-1834
- Thermal state of an ice shell on Europa. Ojakangas, G.W., et al, 1989, p.220-241, eng 44-1951
- Polar wander of an ice shell on Europa. Ojakangas, G.W., et al, 1989, p.242-270, eng 44-1952
- Proceedings, 1989, 245p., eng 44-2017
- Ice release from a reservoir. Bakonyi, P., 1989, p.15-25, eng 44-2019
- New techniques for slush ice run measurement in Poland. Dobrowolski, A., et al, 1989, p.46-54, eng 44-2022
- Ice problems and their solution on Czechoslovak rivers. Matoušek, V., 1989, p.168-178, eng 44-2033
- Method of study and analysis of ice jam development. Mayer, I., 1989, p.179-188, eng 44-2034
- Ice engineering at Hamburgische Schiffbau-Versuchsanstalt. Schwarz, J., 1989, p.199-212, eng 44-2036
- Landsat thematic mapper imagery of the Siple Coast. Bindschadler, R.A., et al, 1988, p.214-215, eng 44-2139
- Conference on offshore mechanics and arctic engineering, 9th, 1990, 339p., eng 44-2199
- Tests of ice crushing on a flexible structure. Singh, S.K., et al, 1990, p.89-94, eng 44-2211
- Ice structure interface model for crushing with extrusion. Marcellus, R.W., et al, 1990, p.95-101, eng 44-2212
- Creep buckling analysis of a floating ice sheet moving against a structure. Luk, C.H., 1990, p.103-110, eng 44-2213
- Analysis of structural response to dynamic ice action. Kärnä, T., et al, 1990, p.135-142, eng 44-2216
- Field measurements of ice drag coefficients. Bruno, M.S., 1990, p.155-159, eng 44-2219
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- Dynamic analysis of a floating ice sheet undergoing vertical indentation. McGilvary, W.R., et al, 1990, p.195-203, eng 44-2224
- Wave-induced bergy bit motion near a floating platform. Mak, L.M., et al, 1990, p.205-215, eng 44-2225
- Effect of specimen size on the bending strength of alluvium reinforced ice. Nixon, W.A., et al, 1990, p.217-222, eng 44-2226
- Failure stress and modulus of ice island ice under compression. Jeffries, M.O., et al, 1990, p.223-229, eng 44-2227
- Is minimum creep rate a fundamental material property. Sinha, N.K., 1990, p.283-288, eng 44-2236
- Barents Sea ice SAR survey. Bercha, F.G., et al, 1990, p.301-307, eng 44-2239
- Measurement of sea ice thickness using electromagnetic induction. Holladay, J.S., et al, 1990, p.309-315, eng 44-2240
- Variations in ice gouge parameters related to different seabed soil types. Ticken, E.J., et al, 1990, p.337-339, eng 44-2244
- Drumlin physical dimensions as a function of subglacial processes. Piotrowski, J.A., 1989, p.429-441, eng 44-2279
- Use of a model basin in tests of sea ice moving against a cone-shape structure, 1988, p.3, 7, eng 44-2401
- Mechanics of ethylene glycol ice in the IHI Company model tank. Kato, K., et al, 1988, p.283-288, jpn 44-2695
- Measurement of fluctuations in the tilt of arctic ice at CEAREX. Czupiot, P.V., et al, 1989, 57p., eng 44-2809
- Proceedings, 1989, 475p., eng 44-3132
- Ambient noise studies in the arctic basin. Bourke, R.H., et al, 1989, p.4-6, eng 44-3134
- Models of the mechanical properties of ice. Richter-Menge, J.A., et al, 1989, p.87-99, eng 44-3139
- Analysis and forecasting at the Naval Polar Oceanography Center. Hinaman, D.E., 1989, p.112-120, eng 44-3142
- Multi-modal ice-management system. Aker, C.M., 1984, p.G/1-G/16, eng 44-3456
- Experience with a new type of model ice. Enkvist, E., 1984, p.J/1-J/15, eng 44-3458
- Factors affecting the prediction of wave-induced iceberg motion. Lever, J.H., et al, 1988, p.177-190, eng 44-3508
- Modelling of flexural-gravitational waves in continuous ice cover. Kozin, V.M., 1989, 4p., eng 44-3732
- Modelling of flexural-gravity waves in continuous ice cover. Levshchikov, L.P., 1989, 5p., eng 44-3733
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- Review of the oceanography and micrometeorology of arctic leads and polynyas. Smith, S.D., 1990, p.123-126, eng 44-3834
- Wind-generated polynyas off the coasts of the Bering Sea islands. Kozo, T.L., et al, 1990, p.126-132, eng 44-3835
- Sea ice circulation and ice concentration, Beaufort Sea. Serreze, M.C., et al, 1990, p.185-188, eng 44-3848
- Simulation of the ice cover variations in the Arctic. Fleming, G.H., 1990, p.243-247, eng 44-3859
- On modeling the baroclinic adjustment of the Arctic Ocean. Hibler, W.D., III, 1990, p.247-250, eng 44-3860

Ice mechanics (cont.)

- Sea ice model forced with GCM atmosphere. Loewe, P., 1990, p.251-255, eng. 44-3861
- Warming effect of meridional ice transport on climate. Ledley, T.S., 1990, p.256-258, eng. 44-3862
- Estimation of drag coefficient and ice thickness. McPhee, M.G., 1990, p.281-284, eng. 44-3865
- Mathematical modelling of deformation mechanisms in ice. Santaoja, K., 1990, 215p. + appends., eng. 44-3958
- Results of calculations of ice jams in the equilibrium state. Buzin, V.A., 1989, p.54-62, rus. 44-4404
- Ice jams on rivers. Kosteliansky, B.A., 1990, p.18-20, rus. 44-4479
- Ice loads on harbor structures. Smirnov, G.N., et al., 1990, p.27, rus. 44-4480
- Ice loads on multi-pile supports. Afanas'ev, V.P., 1990, p.28-29, rus. 44-4481
- Ice melting**
- AMERIEZ 1986: responses of under-ice fauna to low temperature and stress. Aarset, A.V., 1989, p.170-171, eng. 44-21
- Two-dimensional simulation of electrothermal deicing of aircraft components. Wright, W.B., et al., 1989, p.554-562, eng. 44-41
- Radiation balance of melting naleds. Delkin, B.N., 1989, p.73-79, rus. 44-151
- Spring melt patterns in the Kara/Barents Sea: 1984. Crane, R.G., et al., 1989, p.25-33, eng. 44-294
- Features of thermal destruction of inhomogeneous ice cover. Appel, I.L., 1988, p.65-71, eng. 44-523
- Polarization characteristics of melting hail. Tolmachev, V.V., et al., 1989, p.65-70, rus. 44-813
- Transformation of radar characteristics of the spectra of melting hail. Inuiukhin, V.S., et al., 1989, p.42-52, rus. 44-867
- Melting of ice around a horizontal circular cylinder. Hattori, M., et al., 1986, p.193-196, jpn. 44-1346
- Ground data for area IV. Leppikanta, M., 1988, p.103-109, eng. 44-1429
- Ice-penetrating buoy developed by Navy. Pickett, R.L., 1989, p.79-81, eng. 44-1464
- Analytical and numerical methods on freezing and melting heat-transfer problems. Fukusako, S., et al., 1987, p.351-402, eng. 44-1476
- Thermoline circulation under ice shelf model. Hellmer, H.H., et al., 1989, p.325-336, eng. 44-1490
- Reduced rise in sea level. Meier, M.F., 1990, p.115-116, eng. 44-1714
- Vacuum freezing multiple phase transformation processes. Cheng, C.Y., et al., 1987, p.139-153, eng. 44-1788
- Melting of ice in silica pores. Drost-Hansen, W., et al., 1989, p.1439-1441, eng. 44-1858
- Model studies on ice control structures in the Dunakiliti reservoir. Décsi, E., et al., 1989, p.36-45, eng. 44-2021
- Study of ice shedding phenomenon on cables. Druetz, J., et al., 1990, p.143-148, eng. 44-2217
- Ice-snow meltwater debris flow in the Dongru Longba, China. Lu, R.R., et al., 1989, p.148-160, chn. 44-2409
- Using melting ice to teach radiometric dating. Wise, D.U., 1990, p.38-40, 69, eng. 44-2754
- Crystallization of methane hydrates from melting ice. Hwang, M.J., et al., 1990, p.103-116, eng. 44-2776
- Accumulation of water in the ice cover of the Krasnoyarsk reservoir. Kosmakov, I.V., et al., 1989, p.69-80, rus. 44-2935
- Rapid thermal ice penetration system. Andersen, J.K., 1989, p.224-242, eng. 44-3149
- Ice shelf water tracers and water ice interaction in Weddell Sea. Schlosser, P., et al., 1990, p.3253-3263, eng. 44-3185
- Melting of ice-aluminum balls system. Chelliah, S., et al., 1990, p.222-231, eng. 44-3249
- Effects of summer melt on calculation of sea ice concentration. Cavalieri, D.J., et al., 1990, p.5359-5369, eng. 44-3278
- Multiparameter radar modeling and observations of melting ice. Vivekanandan, J., et al., 1990, p.549-564, eng. 44-3282
- Wind tunnel study of melting behavior of snow flakes. Mitra, S.K., et al., 1990, p.584-591, eng. 44-3284
- Pressure induced amorphization of ice Ih. Tse, J.S., et al., 1990, p.3992-3994, eng. 44-3624
- Natural convection melting of a frozen porous medium. Chelliah, S., et al., 1990, p.887-899, eng. 44-3783
- Variations in antarctic sea ice. Breitenberger, E., et al., 1990, p.173-177, eng. 44-3844
- Oceanic heat flux in the Fram Strait measured by a drifting buoy. Perovich, D.K., et al., 1990, p.291-296, eng. 44-3867
- Comparison of melt energy computations and ablatometer measurements on melting ice and snow. Munro, D.S., 1990, p.153-162, eng. 44-4048
- Shortwave radiation and open water in models of sea ice decay. Perovich, D.K., et al., 1990, p.242-246, eng. 44-4202
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- Melting and heat flux parameterizations in a thermodynamic sea ice model. Harvey, L.D.D., 1990, p.7359-7365, eng. 44-4474
- Satellite observations of the ice cover of regions of the Okhotsk Sea. Wakatsuchi, M., et al., 1990, p.13,393-13,410, eng. 44-4544
- Ice metal friction**
- See also: Metal ice friction
- Ice microstructure**
- Numerical simulation of microphysical processes in cumulonimbus Pt.2. Hu, Z.J., et al., 1989, p.185-199, eng. 44-528
- Thermodynamics of irreversible processes applied to ice. Jaccard, C., 1964, p.99-118, eng. 44-2076
- Dynamic and thermodynamic properties of clathrate hydrates. Belosludov, V.R., et al., 1990, p.59-69, eng. 44-2775
- Mathematical modelling of deformation mechanisms in ice. Santaoja, K., 1990, 215p. + appends., eng. 44-3958
- Ice microphysics and radiation transfer through a rain cloud. Smith, E.A., et al., 1989, p.627-630, eng. 44-4045
- Ice models**
- Late Weichselian/Devensian ice sheets in the North Sea and adjacent land areas. Nesje, A., et al., 1988, p.371-384, eng. 44-82
- Partition of air-ice-ocean momentum exchange as a function of ice concentration, floe size, and draft. Steele, M., et al., 1989, p.12,739-12,750, eng. 44-309
- Grain metamorphism in polar nitrogen ice on Triton. Zent, A.P., et al., 1989, p.965-968, eng. 44-365
- Loss of water from Phobos. Fanale, F.P., et al., 1989, p.287-290, eng. 44-387
- Effect of ice pressure on marginal ice zone dynamics. Flato, G.M., et al., 1989, p.514-521, eng. 44-405
- C-band SAR observations of marginal ice zone rheology in the Labrador Sea. Drinkwater, M.R., et al., 1989, p.522-534, eng. 44-406
- Sea ice modeling relevant to the Labrador and Newfoundland shelves. Ikeda, M., 1989, p.535-540, eng. 44-407
- Arctic ice-ocean dynamics. Hibler, W.D., III, 1989, p.47-91, eng. 44-983
- Numerical model of mesoscale physical-biological interactions in the Fram Strait marginal ice zone. Niebauer, H.J., et al., 1989, p.16,151-16,175, eng. 44-1108
- Operation testing and evaluation of the regional ice model. Krakowski, E., 1988, p.221-227, eng. 44-1142
- Surface albedo parameterization in sea-ice models. Morassutti, M.P., 1989, p.348-366, eng. 44-1261
- Predictions and studies with a one-dimensional ice/ocean model. Final report. Riedinger, S.H., et al., 1987, 124p., eng. 44-1286
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- Simulations of the annual sea ice cover in the Weddell Sea. Demuth, C., et al., 1989, 47p., eng. 44-1354
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- Thermoline circulation under ice shelf model. Hellmer, H.H., et al., 1989, p.325-336, eng. 44-1490
- Method of making ice with given physical properties. Petrov, I.G., et al., 1989, 11p., eng. 44-1497
- New large ice model basin at Helsinki University of Technology. Kostilainen, V., et al., 1987, 17p., eng. 44-1604
- Porosity influence on the strength and elasticity of first-year sea ice. Brown, J.H., 1987, 18p., eng. 44-1724
- Research on ice problems related to the operation of hydro power in Sweden. Billfalk, L., 1989, p.26-35, eng. 44-2020
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- Ice score models. Been, K., et al., 1990, p.179-188, eng. 44-2081
- Discussion of recent work to develop a more realistic pressure-area model for ice. Winkler, M.M., et al., 1990, p.231-235, eng. 44-2228
- Mechanics of ethylene glycol ice in the IHI Company model tank. Kato, K., et al., 1988, p.283-288, jpn. 44-2695
- Current view on sea ice modelling. Jones, S.J., et al., 1989, p.114-120, eng. 44-3018
- Ice sheet mass balance variations. Giovinetto, M.B., et al., 1990, p.3517-3531, eng. 44-3069
- Ice-structure interaction testing: a bibliography. Lau, M., 1989, 62p., eng. 44-3109
- Penetration of floating ice sheets with cylindrical indentors. Sodhi, D.S., et al., 1989, p.104, eng. 44-3141
- Recent progress in Navy sea ice forecast modeling. Preller, R.H., 1989, p.125-139, eng. 44-3144
- Influence of large ice particles on radiative transfer through clouds. Smith, E.A., et al., 1989, p.739-755, eng. 44-3306
- Evaluation of state-of-the-art drilling platform ice accretion models. Brown, R.D., et al., 1988, p.131-136, eng. 44-3319
- Ice drift modelling for the Barents Sea. Carstens, T., et al., 1988, p.171-179, eng. 44-3321
- Experience with a new type of model ice. Enkvist, E., 1984, p.1/1-1/15, eng. 44-3458
- Effect of ice friction on ship resistance. Williams, F.M., et al., 1990, p.8/1-8/7, eng. 44-3466
- Ice model tests for icebreaker design. Soininen, H., et al., 1990, p.C/1-C/11, eng. 44-3467
- Density of natural ice accretions related to nondimensional icing parameters. Jones, K.F., 1990, p.477-496, eng. 44-3570
- Thermal response of a small ice cap to climatic forcing. Hanson, B., 1990, p.49-56, eng. 44-3721
- Modelling of flexural-gravitational waves in continuous ice cover. Kozin, V.M., 1989, 4p., eng. 44-3732
- Modeling of flexural-gravity waves in continuous ice cover. Levshchikov, L.P., 1989, 5p., eng. 44-3733
- Cavitating fluid sea ice model. Flato, G.M., et al., 1990, p.239-242, eng. 44-3858
- Sea ice model forced with GCM atmosphere. Loewe, P., 1990, p.251-255, eng. 44-3861
- Preliminary testing of a sea ice model for the Greenland Sea. Preller, R.H., et al., 1990, p.259-277, eng. 44-3863
- Water regime of asteroid (1) Ceres. Fanale, F.P., et al., 1989, p.97-110, eng. 44-3968
- Ice and polar ocean models. Häkkinen, S., 1990, p.335-384, eng. 44-3981
- Premature breakup of river ice cover. Abdel-Zaher, A.K., et al., 1989, p.59-73, eng. 44-3999
- Origin and peculiarities of columnar type crystals in the atmosphere. Podzimek, J., 1989, p.99-108, eng. 44-4002
- Beaufort and Chukchi Sea ice motion part 2—onset of large scale Chukchi Sea ice breakout. Reimer, R.W., et al., 1979, 92p., eng. 44-4139
- Ice strength index—phase III. Baker, D.N., 1990, 56p. + append., eng. 44-4140
- Three dimensional ice sheet model. Böhrer, W.J., et al., 1990, p.17-19, eng. 44-4153
- Global ice and climate changes models. Budd, W.F., et al., 1990, p.23-27, eng. 44-4155
- Two dimensional paleoclimatic ice sheet model. Esch, M.B., et al., 1990, p.55-57, eng. 44-4162
- On a simple sea-ice dynamics model for climate studies. Flato, G.M., et al., 1990, p.72-77, eng. 44-4165
- Model of sea ice and the upper ocean mixed layer off Labrador. Yao, T., et al., 1990, p.11,603-11,612, eng. 44-4235
- Multiyear sea ice in the Arctic: model- and satellite-derived. Walsh, J.E., et al., 1990, p.11,613-11,628, eng. 44-4236
- Monte Carlo study of melting of a model bulk ice. Han, K.K., 1989, 89p., eng. 44-4283
- Coupled sea ice-mixed layer-pycnocline model for the Weddell Sea. Lemke, P., et al., 1990, p.9513-9525, eng. 44-4330
- Sensitivity studies with a sea ice-mixed layer-pycnocline model in the Weddell Sea. Owens, W.B., et al., 1990, p.9527-9538, eng. 44-4331
- Coupled sea ice-mixed layer simulations for the southern ocean. Stössel, A., et al., 1990, p.9539-9555, eng. 44-4332
- Study on ice phenomena using hydraulic models of river sections. Bolotinikov, G., 1989, p.3-17, rus. 44-4399
- Sensitivity test of coupling a sea ice model and an ocean model. Lu, Q.M., et al., 1989, p.1380-1393, eng. 44-4437
- Melting and heat flux parameterizations in a thermodynamic sea ice model. Harvey, L.D.D., 1990, p.7359-7365, eng. 44-4474
- Redistribution function applicable to a dynamic model of sea ice. Shinohara, Y., 1990, p.13,423-13,431, eng. 44-4546
- Dynamic and thermodynamic sea ice model for subpolar regions. Lu, Q.M., et al., 1990, p.13,433-13,457, eng. 44-4547
- Ice mounds**
- See also: Frost mounds
- Ice movement poles**
- See also: Markers
- Ice navigation**
- Hydrometeorological support to antarctic winter navigation. Krasiuk, V.S., et al., 1988, p.124-127, rus. 44-101
- Field evaluation of TDC/Intera MARINE-VUE upgrades final report. Gorman, R., 1989, 57p. + appends., eng. 44-206
- Ice-breaking attachment on air cushion. Zuev, V., et al., 1986, p.37-38, rus. 44-328
- Loads on shafts of river icebreakers. Chernov, S., et al., 1986, p.31, rus. 44-330
- Report of Arctic Summer West 1988 operations USCGC Polar Star. 1988, Var. p., eng. 44-462

- Conquest of the North Pole and current maritime and air transportation problems. Malaure, J., ed. [1987, 385p., eng] **44-396**
- Design of arctic merchant ships. Bonmort, J., et al. [1987, p.307-311, fre] **44-601**
- Submarine exploration of the North Pole region. Lyon, W.K., [1987, p.313-328, eng] **44-602**
- Arctic submarine. McLaren, A.S., [1987, p.329-341, eng] **44-603**
- Ice observations on the Allegheny and Monongahela rivers. Biello, M.A., et al. [1988, 43p., eng] **44-800**
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- Ice edge studies aboard *Polar Sea*, Vol.1, environmental data. Zahn, P.B., et al. [1987, 275p., eng] **44-881**
- Ice edge studies aboard *Polar Sea*, Vol.2, hull ice impact loads. St. John, J.W., [1987, 160p., eng] **44-882**
- Semi-empirical ice resistance model, Vol.1. Lewis, J.W., et al. [1983, 126p., eng] **44-885**
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- Environmental studies aboard *Polar Sea*, Vol.1, environmental data. Harrington, M.G., et al. [1987, 121p., eng] **44-887**
- Hydrometeorological support of winter navigation in the Antarctic. Krasiuk, V.S., et al. [1989, p.85-87, eng] **44-1033**
- Arctic navigation through the eyes of "Thyssen Nordseewerke". Ermakov, N., [1989, p.38-40, rus] **44-1039**
- Ice edge studies aboard *Polar Sea*, Vol.1: Environmental data. St. John, J.W., et al. [1986, 487p., eng] **44-1075**
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- Simulating ice conditions and ship transits through ice. Kotras, T.V., [1987, 57p., eng] **44-1269**
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- NAV-ICE/MARINE-VUE integration. Final report. Lowry, R.T., et al. [1989, var.p., eng] **44-1835**
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- Extended season navigation on St. Marys River. [1987, 22p. + append., eng] **44-1852**
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- Proceedings. [1985, 577p., jpn] **44-2296**
- Propeller-ice floe interaction of ice capable ships. Sasajima, T., et al. [1985, p.108-113, jpn] **44-2301**
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- Drift of the *Mikhail Somov* in the Pacific ice massif (Mar.-July 1985). Chuguf, I.V., et al. [1989, p.52-56, rus] **44-2822**
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- Investigation of ice navigation capabilities and drift performance of the *Mikhail Somov* in antarctic waters. Dubov, A.A., et al. [1989, p.115-123, rus] **44-2831**
- Radar data gathering on M.V. Arctic—Final report. Gautier, C., [1990, 23p., eng] **44-3008**
- Proceedings. [1989, 522p., eng] **44-3017**
- Ship model testing in simulated ice floe covered waters. Aboulazm, A.F., et al. [1989, p.147-154, eng] **44-3023**
- Self-propulsion experiments for icebreakers in ice and open water. Molyneux, W.D., [1989, p.326-331, eng] **44-3024**
- Report on the 26th Soviet Antarctic Expedition. [1989, 144p., rus] **44-3070**
- Application of satellite ice information to assist navigation during scientific research in the Antarctic. Evseev, V.V., et al. [1989, p.89-94, rus] **44-3072**
- Installation of light-optical beacon equipment for navigation signals at Molodezhnaya Station. Kolodiaznyh, V.A., [1989, p.120-125, rus] **44-3076**
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- Ganovex, earth science program of the Federal Republic of Germany. Tessensohn, F., [1987, p.59-67, eng] **44-3244**
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- Propulsion power of an ice-going tanker ship. Takekuma, K., et al. [1984, p.B/1-B/12, eng] **44-3451**
- Hull girder minimum section modulus of large merchant ice breakers. Huther, M., et al. [1984, p.C/1-C/8, eng] **44-3452**
- Multi-modal ice-management system. Aker, C.M., [1984, p.G/1-G/16, eng] **44-3456**
- Continuous motion of a ship in ridged ice. Tunik, A.L., [1984, p.M/1-M/9, eng] **44-3461**
- Ice cutters for mobility of offshore drilling structures. Slocum, R.W., [1984, p.N/1-N/9, eng] **44-3462**
- Conference on Ships and Marine Systems in Cold Regions, 4th, 1990. [1990, var.p., eng] **44-3464**
- Design of a new icebreaker. Molyneux, D., et al. [1990, p.E/1-E/11, eng] **44-3468**
- Baltic escort icebreaker class *Otto*. Lindroos, H., [1990, p.G/1-G/10, eng] **44-3470**
- Full-scale experiences with *Thyssen/Waas* icebreakers. Vargas, G.R., [1990, p.H/1-H/14, eng] **44-3471**
- Summary of Beaufort Sea icebreaker performance. Keinonen, A.J., et al. [1990, p.I/1-I/10, eng] **44-3472**
- Ice class upgrading of M.V. *Arctic*. Luce, M.P., [1990, p.K/1-K/9, eng] **44-3473**
- Propulsion machinery concepts for icebreaking ships. Schmid, H., [1990, p.Q/1-Q/23, eng] **44-3479**
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- Nucleation on cylindrical nuclei. Knight, C.A., et al. [1987, p.599-601, eng] **44-1791**
- Studies of ice nucleation by arctic aerosol on AGASP-II. Borys, R.D., [1989, p.169-185, eng] **44-2174**
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- Effect of surface characteristics of metal oxides on heterogeneous nucleation. Gorbunov, B.Z., et al. [1989, p.225-230, rus] **44-2567**
- Ice initiation by collision-freezing in warm-based cumuli. Czys, R.R., [1989, p.1098-1104, eng] **44-2760**
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- See also: Polynyas

Ice optics

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- Two-stream multilayer, spectral radiative transfer model for sea ice. Perovich, D.K., 1989, 17p., eng 44-313
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- Arctic ice-ocean dynamics. Hibler, W.D., III, 1989, p.47-91, eng 44-983
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- Models of the mechanical properties of ice. Richter-Menge, J.A., et al., 1989, p.87-99, eng 44-3139
- Multi-modal ice-management system. Aker, C.M., 1984, p.G/1-G/16, eng 44-3456
- Physical modelling of a first year ridge ramming event. Comfort, G., et al., 1990, p.A/1-A/24, eng 44-3465
- W.F. Weeks Sea Ice Symposium, San Francisco, CA, Dec. 1988. Ackley, S.F., ed., 1990, 299p., eng 44-3808
- Physical properties of brackish ice, Bay of Bothnia. Weeks, W.F., et al., 1990, p.5-15, eng 44-3809
- Development and physical properties of sea ice in the Weddell Sea, Antarctica. Lange, M.A., 1990, p.22-28, eng 44-3811
- Physical properties of sea ice from the Weddell Sea. Eicken, H., et al., 1990, p.28-32, eng 44-3812
- Electrical, physical and microwave properties of snow-covered floating ice. Garrity, C., 1990, p.57-61, eng 44-3819

- Analysis of sea ice drift in a coastal zone. Smith, P.A., 1990, p.168-172, eng 44-3843
- X-ray analysis of electron density distribution in ice Ih. Goto, A., et al., 1990, p.1412-1417, eng 44-4270
- Experimental studies of the microstructure of ice-methane hydrate agglomerate. Ershov, E.D., et al., 1990, p.38-44, rus 44-4542
- Ice pileup**
- Review of beach nourishment from ice transport of shoreface materials, Beaufort Sea, Alaska. Reimnitz, E., et al., 1990, p.439-469, eng 44-3395
- Ice plasticity**
- Sea ice at elastic, elasto-plastic and plastic stages of deformation. Gladkov, M.G., et al., 1989, 6p., eng 44-1498
- Dislocation mobility for non-basal glide in ice measured by *in situ* X-ray topography. Hondoh, T., et al., 1990, p.89-102, eng 44-4495
- Ice pressure**
- Effect of ice pressure on marginal ice zone dynamics. Flato, G.M., et al., 1989, p.514-521, eng 44-405
- Theoretical and experimental analyses of glacial abrasion and quarrying. Iverson, N.R., 1989, 240p., eng 44-975
- Ice mechanics at intermediate strain rate. Blair, S.C., 1988, p.1-9, eng 44-1124
- Pressuremeter test of frozen ground and ice mechanics. Lemoigne, Y., et al., 1988, p.75-87, eng 44-1130
- Testing methods on sea ice-concrete sliding abrasion. Itoh, Y., et al., 1988, p.89-96, eng 44-1131
- Stress-strain behaviour of cohesionless broken ice. Gale, A.D., et al., 1988, p.109-119, eng 44-1133
- Full-scale measurement of sea ice forces on a jacket structure. Shi, Q.Z., et al., 1988, p.337-344, eng 44-1151
- Pilot experiment to measure arctic pack-ice driving forces. Croasdale, K.R., et al., 1988, p.381-395, eng 44-1156
- Probabilistic ice formation encounter and load analysis. Brown, T.G., et al., 1988, p.397-408, eng 44-1157
- Ice loads on a rigid structure with a compliant foundation. Frederking, R.M.W., et al., 1988, p.409-418, eng 44-1158
- Impact of a ship against ice cover. Segal, Z.B., 1989, 6p., eng 44-1185
- CCGS Louis S. St. Laurent mid-life modernization design studies. Kendrick, A., et al., 1988, p.129-135, eng 44-1203
- Finite element calculations of ice pressure on rigid structures. Derradji-Aouat, A., et al., 1990, p.75-81, eng 44-2209
- Tests of ice crushing on a flexible structure. Singh, S.K., et al., 1990, p.89-94, eng 44-2211
- Creep buckling analysis of a floating ice sheet moving against a structure. Luk, C.H., 1990, p.103-110, eng 44-2213
- Field measurement of pack ice stresses. Comfort, G., et al., 1990, p.177-181, eng 44-2222
- Discussion of recent work to develop a more realistic pressure-area model for ice. Winkler, M.M., et al., 1990, p.231-235, eng 44-2228
- Estimation of permeability coefficient of sea ice. Okuhara, N., et al., 1986, p.142-147, jpn 44-2455
- Triaxial compression tests on saline ice. Kato, K., et al., 1986, p.148-153, jpn 44-2456
- Ice pressure distribution acting on vertical structures. Takeuchi, T., et al., 1986, p.160-165, jpn 44-2458
- Numerical experiment on ice indentation pressure. Kato, K., 1987, p.327-332, jpn 44-2547
- Permeability coefficient of sand- and gravel-bearing sea ice. Saeki, H., et al., 1988, p.289-296, jpn 44-2696
- Physical conditions at the base of a fast moving antarctic ice stream. Engelhardt, H., et al., 1990, p.57-59, eng 44-2818
- Investigation of ice navigation capabilities and drift performance of the *Mikhail Somov* in antarctic waters. Dubov, A.A., et al., 1989, p.115-123, rus 44-2831
- On the size effect of local ice pressures. Tozawa, S., et al., 1989, p.370-375, jpn 44-2901
- Friction between steel and ice at high pressure. Saeki, H., et al., 1989, p.404-409, jpn 44-2906
- Freezing of earth and sand filling in caissons. Mizutani, K., et al., 1989, p.416-420, jpn 44-2908
- Effect of pressure on kinetic friction of ice. Tatinclaux, J.C., 1989, p.127-134, eng 44-3020
- Relationship between confined pressure of a sample and ice intrusion temperature. Horiguchi, K., 1989, p.117-120, jpn 44-3131
- Role of thermal expansion of ice in forming lake shoreline profiles. Tesaker, E., 1987, p.249-257, eng 44-3315
- Estimation of icebreaking resistance by ship motion simulation. Ishibashi, Y., 1984, p.L/1-L/10, eng 44-3460
- Ice model tests for icebreaker design. Soininen, H., et al., 1990, p.C/1-C/11, eng 44-3467
- Ice conditions along Alaskan marine transportation routes. Voelker, R.P., et al., 1990, p.R/1-R/8, eng 44-3480
- Observations and significance of internal pressures in freezing soil. Smith, M.W., et al., 1990, p.75-81, eng 44-3646

- Pressuremeter creep testing in ice: calibration and test procedures. Kjartansson, B.H., et al., 1990, p.3-9, eng 44-4147
- Ice loads on harbor structures. Smirnov, G.N., et al., 1990, p.27, rus 44-4480
- Redistribution function applicable to a dynamic model of sea ice. Shinohara, Y., 1990, p.13,423-13,431, eng 44-4546
- Dynamic and thermodynamic sea ice model for subpolar regions. Lu, Q.M., et al., 1990, p.13,433-13,457, eng 44-4547
- See (also):** Ice push; Ice loads; Pressure ridges
- Ice prevention**
- Electro-impulse de-icing research. Zumwalt, G.W., et al., 1989, 63p., eng 44-716
- Deicing and anti-icing methods for ships. Dick, R.A., et al., 1989, 64p. + appends., eng 44-744
- Aircraft icing research at NASA. Reinmann, J.J., et al., 1989, 55p., eng 44-992
- NASA aircraft icing research program. Shaw, R.J., et al., 1987, 27p., eng 44-1022
- How to reduce winter ice damage to marinas. Wortley, C.A., 1985, 2p., eng 44-1064
- Basic electro-impulse problem in aircraft de-icing applications. Henderson, R.A., et al., 1987, 80p., eng 44-1101
- New anti-ice type of articulated single-point mooring structure. Wang, Q.J., 1988, p.363-367, eng 44-1154
- Boundary layer downstream of engine anti-icing air exhaust. Downs, S.J., et al., 1987, 8p., eng 44-1292
- Influence of environmental factors on aircraft wing performance. Carbonaro, M., ed., 1987, 250p., eng 44-1315
- Effects of aircraft deicing/antiicing fluids on airfoil characteristics. Hill, E.G., 1987, 18p., eng 44-1317
- Icing. Trunov, O.K., 1986, p.10-15, eng 44-1332
- Helicopter icing—testing and certification. Wilson, G.W., 1982, p.66-72, eng 44-1333
- Laminar flow control leading edge glove flight test article. Pearce, W.E., et al., 1984, 112p., eng 44-1405
- Artificial and natural icing tests of AH-64. Phase 2. Adkins, J.M., et al., 1987, 220p., eng 44-1407
- Load test of a composite ice-resisting wall. Hassinen, P., et al., 1989, 59p., eng 44-1597
- Improved OV-ID anti-icing system. Miess, J.C., et al., 1989, 61p., eng 44-1598
- Lining for icicle prevention in railroad tunnels. Okada, K., 1988, p.9-15, eng 44-1775
- Heat exchanger performance with freezing and periodic defrosts. Fisk, W.J., et al., 1985, p.159-172, eng 44-2016
- Advances in winter maintenance techniques. Farquhar, B., 1984, p.1631, eng 44-2062
- Evaluation of shear strength of freshwater ice adhered to icephobic coatings. Mulhern, N.D., 1990, p.149-154, eng 44-2218
- Cold weather design of plumbing systems. Frankel, M., 1987, p.25-40, eng 44-2587
- Cold weather design of plumbing systems, Pt. 2. Frankel, M., 1988, p.40-55, eng 44-2588
- Producing concrete with good salt-frost resistance. Petersson, P.E., 1989, 18p., eng 44-2807
- LAMPS MK III environmental capabilities. Vollmer, M., 1989, p.53-55, eng 44-3137
- Electro-expulsive system for ice removal. Haslim, L., et al., 1989, p.292-302, eng 44-3155
- Arctic/cold weather surface ship program. Kover, D.J., 1989, p.303-313, eng 44-3156
- LCAC arctic design initiative. Ehrhardt, J.P., 1989, p.371-391, eng 44-3158
- NASA's program on icing research and technology. Reinmann, J.J., et al., 1989, p.22/1-22/31, eng 44-3380
- Frost heave prevention for road pavements in mountains. Fukuda, M., et al., 1988, p.25-30, jpn 44-3437
- Top it off and hold the ice. Ha nes, T.B., 1990, p.43-44, eng 44-3584
- Air bubbling against freezing in ports. Endo, K., et al., 1989, p.223-228, jpn 44-3633
- Methods to reduce ice accumulation on miter gate recess walls. Rand, J.H., et al., 1989, 5p., eng 44-3793
- Reduced winter leakage in gates with J-seals. Rand, J.H., et al., 1989, 3p., eng 44-3794
- Prevention of icing of gas turbine air-intake lines. Bakhanov, V.P., et al., 1988, p.21-28, eng 44-4272
- See (also):** Chemical ice prevention; Ice control; Ice removal; Salting
- Ice push**
- Ice-thrust terrains and glaciotectionic settings in central Alberta. Tsui, P.C., et al., 1989, p.1308-1318, eng 44-765
- Vegetated platforms of Lac à l'Eau Claire, subarctic Québec. Bégin, Y., et al., 1989, p.39-50, fre 44-1031
- Ice-push bedrock and its syngenetic till at Pont-Rouge, Québec. Schroeder, J., et al., 1990, p.33-42, fre 44-3531
- Distinction between ice-pushed and ice-lifted landforms on lacustrine and marine coasts. Gilbert, R., 1990, p.15-24, eng 44-3870

- Proglacial glaciectonic deformation and push moraine origin. Hart, J.K., [1990, p.165-180, eng] 44-4476
- Ice-pushed boulders on the shores of Gotland, Sweden. Philip, A.L., [1990, p.661-676, eng] 44-4487
- Ice rafting**
- Sand/ice interactions and sediment deposition in ice-covered lakes. Simmons, G.M., Jr., et al., [1989, p.237-240, eng] 44-659
- Arctic seas: climatology, oceanography, geology, and biology. Herman, Y., ed., [1989, 888p., eng] 44-981
- Sediment composition and sedimentary processes in the Arctic Ocean. Darby, D.A., et al., [1989, p.657-720, eng] 44-986
- Iceberg scoring rates on the Grand Banks, Newfoundland. Lewis, C.F.M., et al., [1988, p.229-254, eng] 44-1143
- Glacial-marine sedimentation. Anderson, J.B., et al., [1989, 127p., eng] 44-2939
- Erratics of Prince Patrick Island: glacial or ice-rafted sediments. Hodgson, D.A., [1990, p.67-70, eng] 44-4493
- Ice reconnaissance**
- See *also*: Ice reporting; Ice conditions; Ice surveys
- Ice refrigeration**
- Diurnal ice storage cooling systems in Army facilities. Sohn, C.W., et al., [1989, p.1079-1085, eng] 44-442
- Case study: office building uses ice storage, heat recovery, and cold air distribution. Tackett, R.K., [1989, p.1113-1121, eng] 44-443
- Cold air distribution options with ice storage. Meckler, G., [1989, p.1194-1205, eng] 44-445
- CBS/ICE: a computer program for simulation of ice storage systems. Silver, S.C., et al., [1989, p.1206-1213, eng] 44-446
- Component models for computer simulation of ice storage systems. Silver, S.C., et al., [1989, p.1214-1226, eng] 44-447
- Ice storage can reduce the construction cost of office buildings. Pearson, F.J., [1989, p.1308-1316, eng] 44-448
- Design of cold air distribution systems with ice storage. Dorgan, C.E., et al., [1989, p.1317-1322, eng] 44-449
- Phase II: direct freeze ice slurry district cooling. Knodel, B.D., [1989, p.240-244, eng] 44-2001
- On the utilization of latent heat energy of naturally frozen ice. Dohkoshi, J., [1986, p.417-422, jpn] 44-2482
- Latent heat of natural ice for cold storage. Dohkoshi, J., et al., [1987, p.27-30, jpn] 44-2529
- "Icehouse" project for cold storage. Kobiyama, M., [1987, p.31-34, jpn] 44-2530
- Ice making in ice pond for cold storage. Kowata, H., et al., [1989, p.225-230, jpn] 44-2882
- Long term preservation of ice in ice pond for cold storage. Kowata, H., et al., [1989, p.231-236, jpn] 44-2883
- Ice regime**
- See *also*: Ice conditions
- Ice relaxation**
- Electrical conductivity of KOH-doped ice from 70 to 250 K. Howe, R., et al., [1989, p.963-965, eng] 44-1087
- Crater relaxation on Ganymede: implications for ice rheology. Hillgren, V.J., et al., [1989, p.1339-1342, eng] 44-1848
- Creep and relaxation behavior of floating ice structures. Kenny, J., et al., [1990, p.183-193, eng] 44-2223
- Crystal growth in deformed polycrystalline ice during stress relaxation. Mizuno, Y., [1989, p.1-12, jpn] 44-3122
- Volume relaxation of ice core from Vostok Station borehole. Lipenkov, V.I.A., et al., [1989, p.59-72, rus] 44-3495
- Ice removal**
- Surface-blowing anti-icing technique for aircraft surfaces. Tabrizi, A.H., et al., [1989, p.354-359, eng] 44-4
- Electroimpulse deicing: electrodynamic solution by discrete elements. Bernhart, W.D., et al., [1989, p.547-553, eng] 44-40
- Two-dimensional simulation of electrothermal deicing of aircraft components. Wright, W.B., et al., [1989, p.554-562, eng] 44-41
- Why is helicopter icing protection getting a cold reception? Smith, L.K., [1983, p.30-34, 76, eng] 44-394
- Ice removal from broadcast towers by low-frequency vibrations. Mulherin, N.D., et al., [1988, 6p., eng] 44-614
- Deicing of aircraft turbine engine inlets. Rosenthal, H.A., et al., [1988, 72p., eng] 44-680
- JUH-1H redesigned pneumatic boot deicing system flight test evaluation. Graham, M.S., et al., [1987, 144p., eng] 44-712
- Deicing and anti-icing methods for ships. Dick, R.A., et al., [1989, 64p. + append., eng] 44-744
- How to reduce winter ice damage to marinas. Wortley, C.A., [1985, 2p., eng] 44-1064
- Basic electro-impulse problem in aircraft de-icing applications. Henderson, R.A., et al., [1987, 80p., eng] 44-1101
- Effects of aircraft deicing/antiicing fluids on airfoil characteristics. Hill, E.G., [1987, 18p., eng] 44-1317
- Design of an advanced pneumatic deicer for the composite rotor blade. Weisend, N.A., Jr., [1989, p.947-950, eng] 44-1321
- Icing. Trunov, O.K., [1986, p.10-15, eng] 44-1332
- Helicopter icing—testing and certification. Wilson, G.W., [1982, p.66-72, eng] 44-1333
- Aircraft icing test facility. Doogood, P.N., [1987, 21p., eng] 44-1608
- Study of ice shedding phenomenon on cables. Druetz, J., et al., [1990, p.143-148, eng] 44-2217
- Evaluation of shear strength of freshwater ice adhered to icephobic coatings. Mulherin, N.D., [1990, p.149-154, eng] 44-2218
- Hazards following ground deicing and ground operations in conditions conducive to aircraft icing. [1982, 38p., eng] 44-2650
- Analysis of ice formation with flow reversal for application to a water source heat pump. Aceves-Saborio, S.M., et al., [1989, p.366-374, eng] 44-3030
- Calcium magnesium acetate for snow-and-ice control. Doody, M.E., [1990, 2p., eng] 44-3047
- Aircraft operation in the Arctic. Meanor, R.W., [1989, p.56-84, eng] 44-3138
- Electro-expulsive system for ice removal. Haslim, L., et al., [1989, p.292-302, eng] 44-3155
- Arctic/cold weather surface ship program. Kover, D.J., [1989, p.303-313, eng] 44-3156
- On the control of conductor rotation from snow loading by counterweights. Skelton, P.L.I., et al., [1989, p.2829-2838, eng] 44-3601
- Chemically breaking the bond between ice and road surfaces. Trost, S.E., et al., [1987, 21p., eng] 44-3767
- Structural dynamics of electro-impulse de-icing on the Lear Fan Kevlar composite leading edge. Paramasivam, T., et al., [1985, p.4768-4776, eng] 44-4241
- Ice reporting**
- Radiometer observations in marginal ice zone environment. Skagset, O., et al., [1988, 130p., eng] 44-840
- Active and passive remote sensing of ice. Kong, J.A., [1989, 23p., eng] 44-845
- Active and passive remote sensing of ice. Kong, J.A., [1988, 13p., eng] 44-852
- Satellite surveillance of ice and snow cover in French Alps. Dedieu, J., et al., [1988, p.371-375, fre] 44-954
- Road ice early warning system. Balgowan, R.M., [1988, 48p., eng] 44-958
- Remote sensing data acquisition, analysis and archival. Final report. Stringer, W.J., [1988, 61p., eng] 44-989
- Real-Time Environmental Arctic Monitoring. Boconcelli, A., [1987, 83p., eng] 44-1081
- Ice conditions in the Greenland waters, 1981. [1986, 167p., eng] 44-1098
- Navarin Basin ice drift program. Final report Mar. 1986-Jan. 1987. [1987, 39p., eng] 44-1216
- Summer multi-year ice properties in the Beaufort Sea (October 1982). Voelker, R.P., et al., [1982, 116p., eng] 44-1403
- Data reduction of GOES information from DCP networks. DeCoff, G.W., et al., [1989, 15p., eng] 44-1480
- Ice data management systems. Terry, B.F., et al., [1989, 154p. + append., eng] 44-1488
- Electromagnetic wave probing of ice and snow cover. Kong, J.A., [1988, 6p., eng] 44-1607
- Active and passive remote sensing of ice. Kong, J.A., [1987, 11p., eng] 44-1609
- Ice navigation in Canadian waters. [1987, 50p., eng] 44-2005
- Economic effect of hydrometeorological and ice information for arctic navigation. Murzin, A.I., [1989, p.75-81, rus] 44-4324
- See *also*: Ice surveys
- Ice ridges**
- See *also*: Pressure ridges
- Ice rubber friction**
- See *also*: Rubber ice friction
- Ice runways**
- Planing machines for building runways on ice. Mellor, M., [1989, 8p. + attachments, eng] 44-225
- Airfields on antarctic glacier ice. Mellor, M., et al., [1989, 97p., eng] 44-3383
- Runway sites for heavy wheeled aircraft in East Antarctica. Budd, W.F., et al., [1990, 95p. + 25 folded maps in separate loose-leaf binder, eng] 44-3894
- Ice salinity**
- Salinity and crystal structure of sea ice near a river mouth. Aota, M., et al., [1988, p.197-211, jpn] 44-740
- Compressive strength of low salinity sea ice, Gulf of Bothnia. Fransson, L.A., et al., [1988, p.21-29, eng] 44-1126
- Ground base I. Vainio, J., [1988, p.31-40, eng] 44-1425
- Ice and snow surveys from an ice station. Håkansson, B., et al., [1988, p.85-101, eng] 44-1428
- Cyclic loading of saline ice: initial experimental results. Cole, D.M., [1990, p.265-271, eng] 44-2234
- Design criteria of level ice compressive strength. Meng, G.L., et al., [1990, p.289-292, eng] 44-2237
- Fundamental characteristics of AC flashover on contaminated insulators covered with ice. Sato, M., et al., [1989, p.889-896, eng] 44-3434
- Vertical results of the Cox and Weeks sea ice salinity prediction model. Cox, G.F.N., [1990, p.40, eng] 44-3815
- Electrical, physical and microwave properties of snow-covered floating ice. Garrity, C., [1990, p.57-61, eng] 44-3819
- Remote sensing of saline ice covered with snow. Lohanick, A.W., [1990, p.61-67, eng] 44-3820
- Field studies of brackish ice to compare with satellite data. Weeks, W.F., et al., [1989, p.1318-1333, eng] 44-4432
- Ice sampling**
- Cryogenic sampling of frazil ice deposits. Chacho, E.F., Jr., et al., [1989, 6p., eng] 44-778
- First impressions of the comet drilling problem. Mellor, M., [1989, p.229-232, eng] 44-2801
- Stable isotope studies on the Greenland ice sheet margin. Reeh, N., et al., [1989, p.54-56, eng] 44-4122
- Sampling of sea ice prior to satellite sensing. Fransson, L.A., et al., [1989, p.1348-1357, eng] 44-4434
- Ice scouring**
- Dynamics of iceberg grounding and scouring. Hodgson, G.J., ed., [1988, 316p. + maps, eng] 44-229
- Effects of ice scour on marine algal assemblages. Heine, J.N., [1989, p.253-260, eng] 44-292
- Pipeline route selection in an iceberg-scoured seabed. Clark, J.I., et al., [1989, p.51-67, eng] 44-681
- Effect of an ice jam on the morphology of a river channel confluence. Bergeron, N., et al., [1988, p.191-196, fre] 44-749
- Iceberg scoring rates on the Grand Banks, Newfoundland. Lewis, C.F.M., et al., [1988, p.229-254, eng] 44-1143
- Beaufort Sea ice scour data base (SCOURBASE) update to 1986. Gilbert, G.R., et al., [1989, 99p., eng] 44-1487
- Effects of ice jam on submersed macrophyte communities. Nichols, S.J., et al., [1989, p.2364-2370, eng] 44-1527
- Test to determine concrete resistance to ice abrasion. Nawwar, A.M., et al., [1988, p.401-426, eng] 44-1739
- Resistance of concrete to ice abrasion—a review. Hoff, G.C., [1988, p.427-455, eng] 44-1740
- Note on new ice gouge events in Alaskan Beaufort Sea. Machemehl, J.L., et al., [1989, p.145-149, eng] 44-1772
- Note on nearshore ice gouge depths in Alaskan Beaufort Sea. Machemehl, J.L., et al., [1989, p.150-153, eng] 44-1773
- Ice scour models. Been, K., et al., [1990, p.179-188, eng] 44-2081
- Ice scouring of near-shore bottom sediment in Beaufort Sea. Héquette, A., [1989, p.129-133, fre] 44-2083
- Variations in ice gouge parameters related to different seabed soil types. Ticken, E.J., et al., [1990, p.337-339, eng] 44-2244
- Dynamic simulations of iceberg-seabed interactions. Bass, D.W., et al., [1989, p.137-151, eng] 44-3097
- Regional ice scour data base update studies. King, E.L., et al., [1989, 177p. + appns., eng] 44-3206
- Ploughing boulders along shorelines, with particular reference to the St. Lawrence estuary. Dionne, J.C., [1988, p.297-308, eng] 44-3274
- On the spatial frequency of linear ice scours on the seabed. Gaskill, H., et al., [1988, p.107-130, eng] 44-3503
- Sediment transport by ice scouring. Barnes, P.W., et al., [1990, p.109-111, eng] 44-3830
- Ice gouges in the Beaufort Sea, Alaska, 1977-1985. Weber, W.S., et al., [1989, 72p., eng] 44-3956
- Influence of sea ice on coastal erosion in the Canadian Beaufort Sea. Héquette, A., [1989, p.81-98, fre] 44-4317
- See *also*: Striations
- Ice sheets**
- Effect of Holocene atmospheric CO₂ variations on northern glaciation. Lindstrom, D.R., et al., [1989, p.628-631, eng] 44-3
- Antarctic drainage flow and implications for southern hemispheric flow. James, I.N., [1989, p.279-290, eng] 44-65
- World glacier inventory: status 1988. Haeberli, W., ed., [1989, Var. p., eng] 44-74
- Late Weichselian/Devensian ice sheets in the North Sea and adjacent land areas. Nesje, A., et al., [1988, p.371-384, eng] 44-82
- Glaciation and deglaciation of Forlandsundet area, Spitsbergen. Forman, S.L., [1989, p.51-60, eng] 44-84
- Instability and self-regulation of glacial areas. Mazo, V.L., [1989, p.3-25, rus] 44-331
- Temperature distribution in an ice sheet. Larina, T.B., et al., [1989, p.43-49, rus] 44-334
- Chemical interaction in the system "water-ice-rock". Ivanov, A.V., [1989, p.75-80, rus] 44-339
- Probing the structure and movement of the antarctic ice sheet. Nishio, F., [1988, p.2-9, jpn] 44-381
- Use of a new high-speed digital data acquisition system in airborne ice-sounding. Wright, D.L., et al., [1989, p.561-567, eng] 44-410
- Radar altimetric studies of polar ice. Drinkwater, M.R., [1987, 231p., eng] 44-438
- Chernobyl fallout in Greenland. Dibb, J.E., [1989, p.987-990, eng] 44-466
- Glacier-hydrological conditions on the Inland Ice. Thomsen, H.H., et al., [1988, 1 fold. map and text, eng] 44-487
- Runoff from the Greenland ice sheet and hydro-electric power. Braithwaite, R.J., et al., [1989, p.12-15, eng] 44-539

Ice sheets (cont.)

- Glacier surveys for planning hydro-electric power, West Greenland. Thomsen, H.H., et al., 1989, p.257-261, eng. **44-585**
- Isotopic dating of the late Pleistocene Laurentide glacier. Hillaire-Marcel, C., et al., 1989, p.125-138, eng. **44-696**
- Resurvey of Byrd Station drill hole. Hansen, B.L., et al., 1989, p.1-6, eng. **44-825**
- Shelf life of antarctic ice. Frolich, R.M., 1989, p.62-65, eng. **44-950**
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- Satellite radar altimetry over ice. Vol.4: Antarctica. Zwally, H.J., et al., 1990, 54p., eng. **44-1825**
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- Conference on Icebreaking and Related Technologies, 3rd, Calgary, 1984. 1984, var.p., eng. **44-3449**
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- See *also*: Ice cover strength
- Ice structure**
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- Lidar detection of leads in arctic sea ice. Schnell, R.C., et al, 1990, p.119-123, eng 44-3833
- Small-scale under-ice morphology study in the high Arctic. Connors, D.N., et al, 1990, p.145-151, eng 44-3839
- Phase transition of ice Ih-XI. Minagawa, I., 1990, p.1676-1685, eng 44-3971
- Sea ice in the polar regions. Gow, A.J., et al, 1990, p.47-122, eng 44-3976
- Studies on the BHQ ice core from the Law Dome, Antarctica. Huang, M., et al, 1990, p.20-26, eng 44-4550
- Ice sublimation**
- Evaporation from ice surface during freezing. Yin, X.C., 1989, p.29-36, eng 44-169
- Ice-water saturation adjustment. Tao, W.K., et al, 1989, p.231-235, eng 44-264
- Albedo patterns of Triton. Stansberry, J.A., 1989, p.961-964, eng 44-364
- Cryogenic scanning electron microscopy in the Arctic and Antarctic. Lilly, M.R., et al, 1990, p.51-60, eng 44-2206
- Study of ice shedding phenomenon on cables. Druetz, J., et al, 1990, p.143-148, eng 44-2217
- Sublimation and transport of water from the north residual polar cap on Mars. Haberle, R.M., et al, 1990, p.1423-1437, eng 44-2290
- Winter frost at Viking Lander 2 site. Svitek, T., et al, 1990, p.1495-1510, eng 44-2295
- Composition of condensate observed at Viking Lander 2 site on Mars. Hart, H.M., et al, 1986, p.134-142, eng 44-2397
- Mass transfer coefficient for ice sublimation under forced convection. Sakly, M., et al, 1989, p.633-644, fre 44-4417
- Ice surface**
- Evaporation from ice surface during freezing. Yin, X.C., 1989, p.29-36, eng 44-169
- Calculation of the effects of ice on the backscatter of a ground plane. Lambert, K.M., et al, 1988, 55p., eng 44-671
- Ice and snow surveys from an ice station. Håkansson, B., et al, 1988, p.85-101, eng 44-1428
- Ground data for area IV. Leppäranta, M., 1988, p.103-106, eng 44-1429
- Airborne radar observations. Johansson, R., et al, 1988, p.119-147, eng 44-1431
- Helicopter impulse radar measurement. Ulriksen, P., 1988, p.149-151, eng 44-1432
- Satellite data. Kemppainen, H., et al, 1988, p.153-159, eng 44-1433
- JARE-30 field work in Sör Rondane Mountains, 1988-1989. Moriaki, K., et al, 1989, p.293-319, jpn 44-1472
- River-ice mounds on Alaska's North Slope. Arcone, S.A., et al, 1989, p.288-290, eng 44-1558
- Polar wander of an ice shell on Europa. Ojakangas, G.W., et al, 1989, p.242-270, eng 44-1952
- Refractive index structure parameter for a year over the frozen Beaufort Sea. Andreas, E.L., 1989, p.667-679, eng 44-2091
- H₂O grain size and the amount of dust in Mars' residual north polar cap. Kieffer, H.H., 1990, p.1481-1493, eng 44-2294
- Image texture analysis of sea ice. Hoyer, R.J., 1990, 278p., eng 44-3263
- Seismic anisotropy of Ross Ice Shelf. Fuchs, J.L., 1990, 129p., eng 44-3266
- Effects of summer melt on calculation of sea ice concentration. Cavalieri, D.J., et al, 1990, p.5359-5369, eng 44-3278
- Miranda: color and albedo variations from Voyager photometry. Hillier, J., et al, 1989, p.314-335, eng 44-3344
- Albedo dichotomy of Rhea: Hapke analysis of Voyager photometry. Verbiscer, A.J., et al, 1989, p.336-353, eng 44-3345
- Studies of sea ice thickness from submarine and aircraft. 1989, 34p. + append., eng 44-3374
- Concurrent remote sensing of arctic sea ice from submarine and aircraft. Wadhams, P., et al, 1989, 20p., eng 44-3376
- Digital low-frequency, surface-profiling ice-radar system. Wright, D.L., et al, 1990, p.112-121, eng 44-3730
- Recent measurements of sea ice topography in the eastern Arctic. Krabill, W.B., et al, 1990, p.132-136, eng 44-3836
- Small-scale under-ice morphology study in the high Arctic. Connors, D.N., et al, 1990, p.145-151, eng 44-3839
- Antarctic ice sheet brightness temperature variations. Jezek, K.C., et al, 1990, p.217-223, eng 44-3854
- Method for measuring snow depth using fine-resolution radars. Lei, G., et al, 1989, p.151-158, eng 44-3897
- Radar backscatter measurements over saline ice. Gogineni, S., et al, 1990, p.603-615, eng 44-3901
- Heterogeneous reactions on model polar stratospheric cloud surfaces. Quinlan, M.A., et al, 1990, p.3255-3260, eng 44-3945
- Pattern recognition of polar cloud radiances. Ebert, E.E., 1989, p.184-187, eng 44-4042

Ice surface (cont.)

- Dislocation mobility for non-basal glide in ice measured by *in situ* X-ray topography. Hondoh, T., et al, 1990, p.89-102, eng. 44-4495
- See *also*: Glacier surfaces

Ice surveys

- World glacier inventory: status 1988. Haeblerli, W., ed, 1989, Var. p., eng. 44-74
- Sea ice interpretation on satellite radar images. Bushuev, A.V., et al, 1989, p.359-370, eng. 44-181
- Comparing radar images of sea conditions with photographs. Mitnik, L.M., et al, 1989, p.371-381, eng. 44-182
- Use of Kosmos-1500 satellite radar images to study the distribution and the dynamics of sea ice. Bushuev, A.V., et al, 1989, p.382-390, eng. 44-183
- Soviet literature on glaciology for 1986. Kotliakov, V.M., et al, 1989, p.173-208, rus. 44-357
- Ninth All-Union Glaciological Symposium in Tbilisi. Ushakov, A.I., 1989, p.209-224, rus. 44-358
- Seasonal variations of sea ice motion in the Transpolar Drift Stream. Serreze, M.C., et al, 1989, p.811-814, eng. 44-363
- Use of a new high-speed digital data acquisition system in airborne ice-sounding. Wright, D.L., et al, 1989, p.561-567, eng. 44-410
- Symposium on Snow and Glacier Research, 1988. 1989, 303p., eng. 44-536
- Sea ice conditions in the Arctic Ocean. Wadhams, P., 1987, p.83-94, eng. 44-599
- Ground ice on Svalbard. Vtiurin, B.I., 1989, p.1-8, eng. 44-999
- Arctic Sea ice record from satellites and polar warming. Parkinson, C.L., 1989, p.459-463, eng. 44-1045
- Profiling multiyear ice features. Harrington, M.G., et al, 1988, p.121-131, eng. 44-1134
- Eastern-western Arctic sea ice analysis 1986. Annual reference report No.13, for period ending 1986. 1987, 107p., eng. 44-1211
- Science plan for the Alaska SAR facility program. 1989, 87p., eng. 44-1242
- Bothnia Experiment in Preparation for ERS-1. 1988, 165p., eng. 44-1422
- Overview of BEPERS Pilot Study. Leppäranta, M., et al, 1988, p.1-15, eng. 44-1423
- SAR flight. Kuittinen, R., 1988, p.17-29, eng. 44-1424
- Ground base I. Vainio, J., 1988, p.31-40, eng. 44-1425
- Ice and snow surveys from an ice station. Håkansson, B., et al, 1988, p.85-101, eng. 44-1428
- Helicopter impulse radar measurement. Ulriksen, P., 1988, p.149-151, eng. 44-1432
- Proceedings. 1989, 245p., eng. 44-2017
- Ice research and engineering in Finland. Mänttinen, M., 1989, p.134-142, eng. 44-2030
- Ice problems and ice research in Norway. Tesaker, E., 1989, p.233-245, eng. 44-2039
- Barents Sea ice SAR survey. Bercha, F.G., et al, 1990, p.301-307, eng. 44-2239
- 25 years of soundings from the ice in Alasheyev Bight. Petrov, N.M., 1989, p.142-148, eng. 44-2442
- Giant and extensive ice and breccia fields in the Pacific and Atlantic oceans. Kozlovskii, A.M., et al, 1989, p.74-81, rus. 44-2826
- Ice sheet mass balance variations. Giovinetto, M.B., et al, 1990, p.3517-3531, eng. 44-3069
- Image texture analysis of sea ice. Holyer, R.J., 1990, 278p., eng. 44-3263
- Satellite remote sensing in Arctic for 1990's. Weeks, W.F., et al, 1989, p.510-530, eng. 44-3433
- BEPERS-88—sea ice remote sensing with synthetic aperture radar in the Baltic Sea. Leppäranta, M., et al, 1989, p.698-699,708-709, eng. 44-3713
- Remote sensing of the polar oceans. Shuchman, R.A., et al, 1990, p.123-169, eng. 44-3977
- Buried snowbank ice in the central and northern Yukon Territory. Pollard, W.H., 1989, p.292-297, eng. 44-4030
- Development of an airborne sea ice thickness measurement system and field test results. Kovacs, A., et al, 1989, 47p., eng. 44-4265
- Proceedings. POAC 89. Vol.3. 1989, p.1188-1611, eng. 44-4425
- Field studies of brackish ice to compare with satellite data. Weeks, W.F., et al, 1989, p.1318-1333, eng. 44-4432
- Sampling of sea ice prior to satellite sensing. Fransson, L.A., et al, 1989, p.1348-1357, eng. 44-4434
- Airborne laser profiling of ice ridges in the Baltic Sea. Lewis, J.E., et al, 1989, p.1370-1379, eng. 44-4436
- BEPERS-88, a sea ice remote sensing experiment in the Gulf of Bothnia. Thompson, T., et al, 1989, p.1495-1507, eng. 44-4445
- See *also*: Ice reporting
- Ice temperature
- Glacier classification in China. Lai, Z.M., et al, 1989, p.103-111, eng. 44-178
- Spring melt patterns in the Kara/Barents Sea: 1984. Crane, R.G., et al, 1989, p.25-33, eng. 44-294
- Temperature distribution in an ice sheet. Larina, T.B., et al, 1989, p.43-49, rus. 44-334

- Compressive strength of low salinity sea ice, Gulf of Bothnia. Fransson, L.A., et al, 1988, p.21-29, eng. 44-1126
- Drilling on Cray Ice Rise, Antarctica. Bindschadler, R.A., et al, 1988, p.60-62, eng. 44-1695
- Compressive properties of sea ice in a harbour in Liaodong Gulf. Li, Z.J., et al, 1990, p.259-263, eng. 44-2233
- Design criteria of level ice compressive strength. Meng, G.L., et al, 1990, p.289-292, eng. 44-2237
- Characteristics of ridges in Northumberland Strait. Brown, T.G., et al, 1990, p.293-299, eng. 44-2238
- Relationship between confined pressure of a sample and ice intrusion temperature. Horiguchi, K., 1989, p.117-120, jpn. 44-3131
- Estimates for temperature of a piece of cold ice. Payne, L.E., et al, 1990, p.443-452, eng. 44-3276
- Role of thermal expansion of ice in forming lake shoreline profiles. Tesaker, E., 1987, p.249-257, eng. 44-3315
- Vertical results of the Cox and Weeks sea ice salinity prediction model. Cox, G.F.N., 1990, p.40, eng. 44-3815
- Antarctic ice sheet brightness temperature variations. Jezek, K.C., et al, 1990, p.217-223, eng. 44-3854
- Oceanic heat flux in the Fram Strait measured by a drifting buoy. Perovich, D.K., et al, 1990, p.291-296, eng. 44-3867
- Temperature of glaciers in China. Huang, M.H., 1989, p.105-121, chj. 44-3887
- Recent warming in central Greenland? Alley, R.B., et al, 1990, p.6-8, eng. 44-4150
- Ice thermal properties
- Temperature of the Akademiya Nauk Glacier, Severnaya Zemlya. Zagorodnov, V.S., et al, 1989, p.134-138, rus. 44-348
- Humidity near the glacier surface. Arapov, P.P., et al, 1989, p.138-140, rus. 44-349
- Loss of water from Phobos. Fanale, F.P., et al, 1989, p.287-290, eng. 44-387
- Heating of dust particles enclosed in icy material. Kömle, N.I., et al, 1989, p.193-195, eng. 44-525
- Using ice as a phase change material. Utaka, Y., et al, 1988, p.117-131, jpn. 44-1370
- Thermophysical properties of sea ice. Nazintsev, I.U.L., et al, 1988, 258p., rus. 44-1402
- Rare second year—lake ice cover in the Canadian High Arctic. Adams, W.P., et al, 1989, p.299-306, eng. 44-1932
- Thermal state of an ice shell on Europa. Ojakangas, G.W., et al, 1989, p.220-241, eng. 44-1951
- Polar wander of an ice shell on Europa. Ojakangas, G.W., et al, 1989, p.242-270, eng. 44-1952
- Phase II: direct freeze ice slurry district cooling. Knodel, B.D., 1989, p.240-244, eng. 44-2001
- Crystal ice generation in district heating and cooling. Graham, T., et al, 1989, p.246-258, eng. 44-2002
- Influences of ice slurry characteristics. Larkin, B., et al, 1989, p.340-351, eng. 44-2003
- Ice slurry generator for district cooling. Paradis, M.A., et al, 1989, p.392-404, eng. 44-2004
- Changes of the ice thermal regime in the river caused by heated water discharges. Dobrowolski, A., et al, 1989, p.55-65, eng. 44-2023
- Investigation of thermal exchange in frozen ground and ice masses. Danielian, I.U.S., et al, 1989, p.101-108, rus. 44-2159
- Thermal conductivity of ice and ice clathrate. Ahmad, N., et al, 1987, p.167-171, eng. 44-2347
- On the utilization of latent heat energy of naturally frozen ice. Dohkoshi, J., 1986, p.417-422, jpn. 44-2482
- "Icehouse" plan for thermal storage of winter cold. Kawamoto, S., et al, 1986, p.423-428, jpn. 44-2483
- Latent heat of natural ice for cold storage. Dohkoshi, J., et al, 1987, p.27-30, jpn. 44-2529
- Thermophysical properties of ice, snow, and sea ice. Fukusako, S., 1990, p.353-372, eng. 44-2795
- Theoretical estimates of light reflection and transmission by spatially inhomogeneous and temporally varying ice covers. Perovich, D.K., 1990, p.45-49, eng. 44-3816

Ice thickness

See *also*: Glacier thickness; Ice cover thickness

Ice tongues

See *also*: Glacier tongues

Ice transported material

See *also*: Ice rafting

Ice underside

See *also*: Ice bottom surface

Ice vapor interface

Polycrystalline ice failure by gas pressure at pores. Ujihira, M., et al, 1988, p.336-341, jpn. 44-2702

Ice veins

- Englacial and subglacial hydrology: a qualitative review. Hooke, R.L., 1989, p.221-233, eng. 44-1263
- See *also*: Ground ice; Ice wedges

Ice volume

- World glacier inventory: status 1988. Haeblerli, W., ed, 1989, Var. p., eng. 44-74
- Pliocene-Pleistocene ice volume on Pacific margin of Antarctic Peninsula. Larter, R.D., et al, 1989, p.731-734, eng. 44-306

- Giant icebergs of West Antarctica. Losev, K.S., 1989, p.132-134, rus. 44-347
- Pleistocene deglaciation and the global gravity field. Mitrovica, J.X., et al, 1989, p.13,651-13,671, eng. 44-413

- Giant icebergs in West Antarctica. Losev, K.S., 1989, p.72-75, eng. 44-1005
- Pleistocene evolution: Northern Hemisphere ice sheets and North Atlantic Ocean. Ruddiman, W.F., et al, 1989, p.353-412, eng. 44-1733
- Changes in the glacier cover of Severnaya Zemlya in the twentieth century. Govorukha, L.S., et al, 1987, p.300-305, eng. 44-2055
- Giant and extensive ice and breccia fields in the Pacific and Atlantic oceans. Kozlovskii, A.M., et al, 1989, p.74-81, rus. 44-2826
- Potential impact of ice sheets on astroclimatic orbital parameters. Dehant, V., et al, 1990, p.7573-7577, eng. 44-3872
- On the relationship between ice volume and sea level over the last glacial cycle. Marsiat, I.M., et al, 1990, p.81-84, eng. 44-4414

Ice water interface

- Performance of an ice/water slurry based district cooling system. Knodel, B.D., 1987, p.274-277, eng. 44-16
- Direct freeze ice slurry system testing. Knodel, B.D., 1983, p.86-93, eng. 44-19
- Subglacial meltwater discharge in a tidewater glacier environment. Pirman, S.L., et al, 1990, p.265-281, eng. 44-218
- Glaciation interaction with the ocean: paleogeographic aspects. Grosvald, M.G., et al, 1988, 184p., rus. 44-275
- Reaction of water movement near shelf ice edge to air-sea variables. Chu, P.C., 1987, p.31-42, eng. 44-291
- Overview of LIMEX'87 ice observations. Carsey, F.D., et al, 1989, p.468-482, eng. 44-401
- Airborne SAR observations of ocean surface waves penetrating floating ice. Raney, R.K., et al, 1989, p.492-500, eng. 44-403
- Sea ice modeling relevant to the Labrador and Newfoundland shelves. Ikeda, M., 1989, p.535-540, eng. 44-427
- Seasonal ice margin data for Beaufort and Chukchi Seas. Carsey, F.D., et al, 1989, p.541-551, eng. 44-408
- Sea ice margins: a summary of physical phenomena. Muench, R.D., 1989, 51p., eng. 44-460
- Arctic program, Office of Naval Research FY 87. Obrochta, R., ed, 1989, 206p., eng. 44-472
- Arctic sciences program summary. FY 88. Obrochta, R., ed, 1989, 130p., eng. 44-473
- Boundary layer under fast ice, Hudson Bay, Canada. Shirasawa, K., et al, 1988, p.213-221, jpn. 44-741
- Experimental studies on downward freezing of pure and saline water. Brewster, R.A., 1989, 168p., eng. 44-968
- Waves at the interface of water and sea ice. Weng, X.W., 1989, 146p., eng. 44-1018
- Decreasing the strength of ice due to adsorption of surrounding water. Petrov, I.G., 1989, 6p., eng. 44-1184
- Growth instabilities of the ice-water interface. Yeh, Y., 1982, 45p., eng. 44-1228
- Ice crystal growth instabilities at ice water interface. Yeh, Y., 1982, 45p., eng. 44-1274
- Predictions and studies with a one-dimensional ice/ocean model. Final report. Riedlinger, S.H., et al, 1987, 124p., eng. 44-1286
- Summertime ice edge in the Chukchi Sea. Stringer, W.J., et al, 1987, 208p., eng. 44-1439
- Weathering of oil in sea ice. 1988, 465p., eng. 44-1442
- Flow patterns generated by an ice keel in stratified flow. Topham, D.R., et al, 1982, 230p., eng. 44-1508
- Fracture toughness of ice in contact with salt water. Sabol, S.A., et al, 1989, p.191-192, eng. 44-1543
- Sea ice and climate. 1987, 104p., eng. 44-1606
- Eastern Weddell Sea ocean/meteorological drifters. Martinson, D.G., 1988, p.73-74, eng. 44-1702
- Enthalpy method for heat conduction problems with moving boundaries. Hunter, L.W., et al, 1989, p.239-242, eng. 44-1839
- Dendritic growth of an elliptical paraboloid with forced convection in the melt. Ananth, R., et al, 1989, p.575-593, eng. 44-1872
- Antifreeze glycoproteins: structure-function studies. Feeney, R.E., et al, 1988, p.136-138, eng. 44-1906
- Rare second year—lake ice cover in the Canadian High Arctic. Adams, W.P., et al, 1989, p.299-306, eng. 44-1932
- Standing waves of a floating plate on the surface of a liquid. Gladun, O.M., et al, 1989, p.357-361, eng. 44-1946
- Thermal state of an ice shell on Europa. Ojakangas, G.W., et al, 1989, p.220-241, eng. 44-1951
- Study of instability phenomena on ice-water interfaces. Kolodko, J., 1989, p.107-115, eng. 44-2027
- Influence of some environmental factors on the evolution of river ice covers. Kolodko, J., 1989, p.116-121, eng. 44-2028
- Field measurements of ice drag coefficients. Bruno, M.S., 1990, p.155-159, eng. 44-2219

- One-dimensional mixed layer model beneath the Ross Ice Shelf with tidally induced vertical mixing.** Scheduikat, M., et al. [1990, p.29-42, eng] **44-2357**
- Snow covered ice in the Pacific ice massif.** Kozlovskii, A.M., et al. [1989, p.84-87, rus] **44-2828**
- Experimental study on wave decay due to floating ice floes.** Asakawa, N., et al. [1989, p.410-415, jpn] **44-2907**
- State-of-the-art review of wave propagation in floating ice sheets.** Arunachalam, V.M., et al. [1989, 20p., eng] **44-3119**
- Ice shelf water tracers and water ice interaction in Weddell Sea.** Schlosser, P., et al. [1990, p.3253-3263, eng] **44-3185**
- Deep penetration of permafrost through saturated ground.** Kelly, R.J., et al. [1990, p.27, eng] **44-3537**
- Light scattering at the surface of growing ice crystals.** Mazur, P., et al. [1989, p.497-509, eng] **44-3693**
- Simulation of the ice cover variations in the Arctic.** Fleming, G.H., [1990, p.243-247, eng] **44-3859**
- Preliminary testing of a sea ice model for the Greenland Sea.** Preller, R.H., et al. [1990, p.259-277, eng] **44-3863**
- Interaction of an ocean eddy with a marginal ice zone ocean front.** Smith, D.C., IV, et al. [1990, p.278-281, eng] **44-3864**
- Marine controls on modern sedimentation on the antarctic continental shelf.** Jacobs, S.S., [1989, p.121-153, eng] **44-3934**
- Biogenic sedimentation in McMurdo Sound, Antarctica.** Dunbar, R.B., et al. [1989, p.155-179, eng] **44-3935**
- Sediment deposition in glacier-influenced fjords.** Syvitski, J.P.M., [1989, p.301-329, eng] **44-3940**
- Polar oceanography. Part A: physical science.** Smith, W.O., Jr., ed. [1990, 406p., eng] **44-3974**
- Small-scale processes in air-sea-ice interactions.** McPhee, M.G., [1990, p.287-334, eng] **44-3980**
- Ice and polar ocean models.** Hakkinen, S., [1990, p.335-384, eng] **44-3981**
- Air-ice-ocean feedback mechanisms and ice oscillation.** Chu, P.C., [1990, p.28-31, eng] **44-4156**
- Shortwave radiation and open water in models of sea ice decay.** Perovich, D.K., et al. [1990, p.242-246, eng] **44-4202**
- Estimating oceanic heat flux from sea ice thickness.** Wettlaufer, J.S., et al. [1990, p.315-318, eng] **44-4217**
- Flow resistance under an ice cover.** Pavlov, S.I.A., et al. [1988, p.28-33, eng] **44-4220**
- Model of sea ice and the upper ocean mixed layer off Labrador.** Yao, T., et al. [1990, p.11,603-11,612, eng] **44-4235**
- Ocean waves at the edge of shore fast sea ice.** Fox, C., et al. [1990, p.11,629-11,639, eng] **44-4237**
- Evolution of ocean winter mixed layer and sea ice.** Martinson, D.G., [1990, p.11,641-11,654, eng] **44-4238**
- Southern ocean winter mixed layer.** Gordon, A.L., et al. [1990, p.11,655-11,672, eng] **44-4239**
- Sound waves at the water-sea ice interface.** Weng, W., et al. [1990, p.2481-2488, eng] **44-4276**
- Coupled sea ice-mixed layer-pycnocline model for the Weddell Sea.** Lemke, P., et al. [1990, p.9513-9525, eng] **44-4330**
- Sensitivity studies with a sea ice-mixed layer-pycnocline model in the Weddell Sea.** Owens, W.B., et al. [1990, p.9527-9538, eng] **44-4331**
- Coupled sea ice-mixed layer simulations for the southern ocean.** Stössel, A., et al. [1990, p.9539-9555, eng] **44-4332**
- Sensitivity test of coupling a sea ice model and an ocean model.** Lu, Q.M., et al. [1989, p.1380-1393, eng] **44-4437**
- Studies in freezing of water and aqueous solutions.** Pühringer, J., et al. [1989, p.1394-1417, eng] **44-4438**
- Ice (water storage)**
- Ice cools office-hotel complex.** Gilbertson, T.A., [1989, p.47-52, eng] **44-1091**
- Control of brine-type ice storage systems.** MacCracken, C.D., [1985, p.32-43, eng] **44-2014**
- "Icehouse" project '88 in Funagata uses snow for cold storage.** Hashimoto, Y., et al. [1988, p.536-540, jpn] **44-2723**
- Ice reserves and main features of the current glaciation of Tien Shan.** Vilesov, E.N., et al. [1989, p.117-130, rus] **44-3240**
- Performance of an ice-in-tank diurnal ice storage cooling system at Fort Stewart, GA.** Sohn, C.W., et al. [1990, 35p., eng] **44-4462**
- Ice wedges**
- Ice-wedge cracks, western Arctic coast.** McKay, J.R., [1989, p.365-368, eng] **44-1873**
- Ice-wedge casts in an early deglaciated area of southern Sweden.** Svensson, H., [1987, p.12-18, eng] **44-2583**
- Pleistocene ice wedge casts.** Grosso, S.A., et al. [1989, p.125-136, eng] **44-2618**
- Periglacial form group of southwestern Denmark.** Svensson, H., [1984, p.25-34, eng] **44-2640**
- Isotopic geochemistry of ice wedges.** Vasil'chuk, I.U.K., [1990, p.154-157, rus] **44-2957**
- Ice wedge casts and relict patterned ground in central IL.** Johnson, W.H., [1990, p.51-72, eng] **44-3264**
- Isotopic composition of ice-wedge ice in northwestern Canada.** Michel, F.A., [1990, p.5-9, eng] **44-3636**
- Ice wedge characteristics of periglacial environments of Canada.** Hyatt, J.A., [1990, p.17-26, eng] **44-3638**
- See also: Ground ice; Ice veins**
- Ice wood friction**
- See also: Wood ice friction**
- Iceberg towing**
- Weather satellite views iceberg.** Brandli, H.W., [1988, p.16, eng] **44-2119**
- Moving an ice mountain.** Kollé, J.J., [1990, p.48-53, eng] **44-3786**
- Icebergs**
- Report of the International Ice Patrol in the North Atlantic: season of 1987.** [1987, 132p., eng] **44-34**
- Dynamics of iceberg grounding and scouring.** Hodgson, G.J., ed. [1988, 316p. + maps, eng] **44-229**
- Giant icebergs of West Antarctica.** Isev, K.S., [1989, p.132-134, rus] **44-347**
- Influence of the mountain barrier effect on iceberg motion.** Lu, M.C., et al. [1989, p.701-710, eng] **44-481**
- Pipeline route selection in an iceberg-scoured seabed.** Clark, J.I., et al. [1989, p.51-67, eng] **44-681**
- Arctic ice island and sea ice movements and mechanical properties.** Sackinger, W.M., et al. [1987, 31p., eng] **44-722**
- Drift of a giant iceberg in the Weddell Sea.** Komyshevet, V.I., et al. [1989, p.68-71, eng] **44-1004**
- Giant icebergs in West Antarctica.** Losev, K.S., [1989, p.72-75, eng] **44-1005**
- Experimental study of the brittle behaviour of iceberg ice.** Lachance, J., et al. [1988, p.11-19, eng] **44-1125**
- Iceberg scoring rates on the Grand Banks, Newfoundland.** Lewis, C.F.M., et al. [1988, p.229-254, eng] **44-1143**
- Deep ice penetrator.** Rychnovsky, R., [1988, p.323-336, eng] **44-1150**
- Wave-driven growler impact on platform columns.** Spring, W., [1988, p.351-362, eng] **44-1153**
- Active microwave observations of sea ice and iceberg.** Skriver, H., et al. [1986, p.13-24, eng] **44-1237**
- Greenland icebergs: a problem in geophysics and atmospheric optics.** Lee, R.L., Jr., [1990, 245p., eng] **44-1486**
- On the nature of Svalbard icebergs.** Dowdeswell, J.A., [1989, p.224-234, eng] **44-1550**
- Ross Sea data buoy project, 1986-1988.** Moritz, [1988, p.78-80, eng] **44-1703**
- Subsurface currents in the southeast Ross Sea.** Jacobs, S., [1988, p.80-81, eng] **44-1704**
- Weather satellite views iceberg.** Brandli, H.W., [1988, p.16, eng] **44-2119**
- Exploration drilling and production in the Barents Sea.** Löset, S., et al. [1990, p.25-30, eng] **44-2203**
- Arctic and Antarctic development.** Byford, A.N., [1990, p.39-49, eng] **44-2216**
- Wave-induced berg bit motion near a floating platform.** Mak, L.M., et al. [1990, p.205-215, eng] **44-2225**
- Failure stress and modulus of ice island ice under compression.** Jeffries, M.O., et al. [1990, p.223-229, eng] **44-2227**
- Improvement in arctic submarine pipeline design.** Blower, S., et al. [1989, p.433-440, eng] **44-2746**
- 25th annual meeting.** [1990, 82p., eng] **44-2767**
- Drift of the Mikhail Somov in the Pacific ice massif (Mar.-July 1985).** Chugul, I.V., et al. [1989, p.52-56, rus] **44-2822**
- Distribution of icebergs in the South Pacific Ocean according to observations from the icebreaker Vladivostok.** Kozlovskii, A.M., [1989, p.81-84, rus] **44-2827**
- Dynamic simulations of iceberg-seabed interactions.** Bass, D.W., et al. [1989, p.137-151, eng] **44-3097**
- Regional ice scour data base update studies.** King, E.L., et al. [1989, 177p. + appns., eng] **44-3206**
- Damage due to ship collisions with icebergs.** Aldwinckle, D.S., et al. [1984, p.D/1-D/14, eng] **44-3453**
- Iceberg outflow and glaciation mass balance on King George I.** Govorukha, L.S., [1989, p.92-96, rus] **44-3498**
- Factors affecting the prediction of wave-induced iceberg motion.** Lever, J.H., et al. [1988, p.177-190, eng] **44-3508**
- Mountain barrier effects on ice island drift in a coastal ice zone.** Lu, M., et al. [1990, p.163-168, eng] **44-3942**
- Ice of the antarctic Pacific.** Keys, J.R., [1990, p.95-123, eng] **44-4054**
- Calving of Erebus Glacier tongue.** Robinson, W., et al. [1990, p.615-616, eng] **44-4486**
- Probabilistic evaluation of design iceberg collision.** McTaggart, K.A., et al. [1990, p.85-101, eng] **44-4489**
- Icebound lakes**
- Deposits in a small ice-dammed lake in Norway.** Donnelly, R., et al. [1989, p.581-600, eng] **44-682**
- Jökulhlaups from ice-dammed lake in Greenland.** Russell, A.J., [1989, p.157-162, eng] **44-1538**
- Observations on the drainage of an ice-dammed lake in West Greenland.** Russell, A.J., et al. [1990, p.72-74, eng] **44-3724**
- See also: Frozen lakes**
- Icebreakers**
- Icebreakers—their historical and technical development.** Segerscrantz, H., [1989, p.77-85, eng] **44-44**
- Ship icing in the Arctic.** Voevodin, V., [1989, p.22-23, rus] **44-116**
- Retrofitting of CCG icebreaker Louis S. St. Laurent.** Nissen, P.C., [1989, p.666-671, ger] **44-134**
- Successful ice test-run for the new Swedish icebreaker Oden.** [1989, p.701-706, eng] **44-135**
- Problems of ice mechanics in icebreaker's design.** Dem'ianchenko, V.I.A., et al. [1983, 6p., eng] **44-191**
- Loads on shafts of river icebreakers.** Chernov, S., et al. [1986, p.31, rus] **44-330**
- Evaluating ice resistance mathematical models.** Glen, I.F., et al. [1989, 107p., eng] **44-399**
- Report of Arctic Summer West 1988 operations USCGC Polar Star.** [1988, Var. p., eng] **44-462**
- Ice cover bending due to ship motion.** Levit, B.M., et al. [1969, 4p., eng] **44-607**
- Ship operations, 1986-1987.** Marthaler, J.G., [1989, p.306-309, eng] **44-664**
- Fire safety analysis of the polar icebreaker replacement design.** Richards, R.C., [1987, 165p., eng] **44-846**
- Fire safety analysis of the polar icebreaker replacement design.** Richards, R.C., [1987, 287p., eng] **44-847**
- Fire safety analysis of the polar icebreaker replacement design.** Richards, R.C., [1987, 283p., eng] **44-848**
- Fire safety analysis of the polar icebreaker replacement design.** Richards, R.C., [1987, 487p., eng] **44-849**
- Ice edge studies aboard Polar Sea, Vol.2, hull ice impact loads.** St. John, J.W., [1987, 160p., eng] **44-882**
- Ice edge studies aboard Polar Sea, Vol.3, propeller ice loads.** Meyer, J.R., et al. [1986, 350p., eng] **44-883**
- Weld-zone corrosion of steel plates for icebreakers.** Brigham, R.J., et al. [1988, p.311-321, eng] **44-1024**
- Arctic navigation through the eyes of "Thyssen Nordseewerke".** Ermakov, N., [1989, p.38-40, rus] **44-1039**
- Selection of an optimum propeller for commercial ships.** Final report. Hadler, J.B., [1988, 77p., eng] **44-1056**
- Arctic marine transport and ancillary technologies.** Frankel, E.G., [1988, p.100-129, eng] **44-1121**
- Canadian arctic marine transportation.** Stuart, W.J.H., et al. [1988, p.130-152, eng] **44-1122**
- Science support requirements in a modern icebreaker design.** Hayes, R.M., [1988, p.507-518, eng] **44-1168**
- Crack propagation on floating structures in ice-infested waters.** Swamidass, A.S.J., et al. [1988, p.527-537, eng] **44-1170**
- Impact of a ship against ice cover.** Segal, Z.B., [1989, 6p., eng] **44-1185**
- Friction panel measurements in icebreaking ship tests.** Liukkonen, S., [1989, p.251-253, eng] **44-1198**
- CCGS Louis S. St. Laurent mid-life modernization design studies.** Kendrick, A., et al. [1988, p.129-135, eng] **44-1203**
- Bering Sea data collection aboard USCGC Polar Star, Feb.-Mar. 1984, Vol.2.** Geisel, F.A., et al. [1984, 115p., eng] **44-1215**
- Ship ramming multi-year ice floes: model test results.** Riska, K., [1988, 121p., eng] **44-1244**
- Ship ice breaking dynamics and level ice resistance testing.** Vol.1. Voelker, R.P., et al. [1985, 52p., eng] **44-1280**
- Ship icebreaking dynamics and level ice resistance testing.** Vol.2. Voelker, R.P., et al. [1985, 302p., eng] **44-1281**
- Beaufort Sea ice research aboard Polar Sea.** Voelker, R.P., et al. [1985, 235p., eng] **44-1282**
- Contemporary icebreaker performance.** Keinonen, A.J., et al. [1989, Var. p., eng] **44-1495**
- ITTC questionnaire on maneuvering in ice: summary of answers.** Eskola, H., [1989, 13p., eng] **44-1596**
- Towed resistance trials in ice of the USCGC Mobile Bay (WTGB 103).** Zahn, P.B., et al. [1987, 463p., eng] **44-1630**
- Ice management: auxiliary propulsion and maneuvering system.** [1988, p.10-17, eng] **44-1687**
- Atomic icebreaker Taimyr.** [1989, p.12-15, eng] **44-1715**
- Model tests in ice of a Canadian Coast Guard icebreaker.** Tatinclaux, J.C., et al. [1989, 41p., eng] **44-1723**
- Transport organization during the extended navigation period.** Atlas, B.A., et al. [1989, 125p., rus] **44-1752**
- Ice research and engineering in Finland.** Mänttinen, M., [1989, p.134-142, eng] **44-2030**
- Ice engineering at Hamburgische Schiffbau-Versuchsanstalt.** Schwarz, J., [1989, p.199-212, eng] **44-2036**
- New welding procedure for icebreaker hulls.** Toyocada, M., et al. [1986, p.199-210, eng] **44-2063**
- Guide for building and classing steel vessels intended to navigate in ice.** [1986, 50p., eng] **44-2064**
- Development of tugs for operation in the Canadian western Arctic.** Mattson, J., [1989, p.52-53, eng] **44-2120**
- U.S. Navy activities in Antarctica, 1987-1988.** Fisher, D.D., [1988, p.222-224, eng] **44-2143**
- Arctic grows from ice adhesion.** Voevodin, V., [1989, p.86-90, eng] **44-2195**
- Theoretical investigation of the icebreaking cycle in 2-D.** Valanto, P., [1990, p.111-126, eng] **44-2214**

Icebreakers (cont.)

- Ship icebreaking resistance with flooding water effect. Wang, S.L., et al. [1990, p.127-134, eng] 44-2215
- U.S. Coast Guard's new polar icebreaker design. Canavan, M.S., et al. [1989, p.1087-1097, eng] 44-2566
- Arctic east/arctic west summer 1989 cruise report. [1989, Var. p., eng] 44-2611
- Icebreaker *Vladivostok* rescue expedition. Chilingarov, A.I., [1989, p.10-16, rus] 44-2819
- Provision of hydrometeorological information to the rescue expedition on board the icebreaker *Vladivostok*. Krutskikh, B.A., et al. [1989, p.40-51, rus] 44-2821
- Ships' speed in the Pacific ice mass in winter. Smirnov, V.I., [1989, p.64-68, rus] 44-2824
- Only two polar icebreakers left. Story, J.F., [1989, p.84-88, eng] 44-3012
- Decline of the icebreaker fleet. Story, J.F., [1989, p.86, eng] 44-3013
- Proceedings. [1989, 522p., eng] 44-3017
- Self-propulsion experiments for icebreakers in ice. Molyneux, W.D., [1989, p.326-331, eng] 44-3024
- Power requirements of icebreakers and ice-going ships. Titov, I.A., et al. [1989, 11 p., eng] 44-3120
- Polar lows. Fett, R.W., [1989, p.267-272, eng] 44-3153
- Hull forms for U.S. Navy surface ship ice transit. Milano, V.R., [1989, p.314-370, eng] 44-3157
- Ice failure and icebreaker bow form. Newbury, S., [1989, 5p. + append., eng] 44-3180
- Full scale trials of Canadian icebreaker. Williams, F.M., [1989, 9p., eng] 44-3182
- Study into the effect of buoyancy on ice/hull interaction. Reynolds, A., [1989, 4p. + photographs, eng] 44-3194
- Parametric study of icebreaking bow forms. Carter, D., [1990, 87p., eng] 44-3198
- Development trends in icebreakers and ice-going transport ships. Simonov, I.U.A., et al. [1989, p.3-6, rus] 44-3210
- "Taymyr" shallow-draft atomic icebreaker. Tsol, L.G., et al. [1989, p.6-9, rus] 44-3211
- Unconventionally shaped icebreaker. Titov, I.A., et al. [1989, p.9-11, rus] 44-3212
- Ice loads on ship engines. Andriushin, A.V., et al. [1989, p.69-75, rus] 44-3218
- Navigation in the ice of the Arctic. Arikainen, A.I., [1990, 247p., rus] 44-3359
- Sea control in the Arctic: a Soviet perspective. Egan, D.M., et al. [1987, 48p., eng] 44-3371
- Arctic marine transportation program, 1979 to 1986. Technical summary. Zahn, P.B., et al. [1988, Var. p., eng] 44-3407
- Conference on Icebreaking and Related Technologies, 3rd. Calgary, 1984. [1984, var. p., eng] 44-3449
- Hull girder minimum section modulus of large merchant icebreakers. Huther, M., et al. [1984, p.C71-C78, eng] 44-3452
- Ship-ice floe collision analysis. Matsuishi, M., et al. [1984, p.E1-E13, eng] 44-3454
- Multi-modal ice-management system. Aker, C.M., [1984, p.G1-G16, eng] 44-3456
- System development for measurement of full scale ship ice impact forces. Ghoneim, G.A.M., et al. [1984, p.K1-K15, eng] 44-3459
- Estimation of icebreaking resistance by ship motion simulation. Ishibashi, Y., [1984, p.L1-L10, eng] 44-3460
- Continuous motion of a ship in ridged ice. Tunik, A.L., [1984, p.M1-M19, eng] 44-3461
- Conference on Ships and Marine Systems in Cold Regions, 4th, 1990. [1990, var. p., eng] 44-3464
- Ice model tests for icebreaker design. Soininen, H., et al. [1990, p.C1-C17, eng] 44-3467
- Design of a new icebreaker. Molyneux, D., et al. [1990, p.E1-E11, eng] 44-3468
- Tests from the full scale testing of the new icebreaker *Oden*. Liljestrom, G.C., et al. [1990, p.F1-F9, eng] 44-3469
- Baltic escort icebreaker class *Otto*. Lindroos, H., [1990, p.G1-G10, eng] 44-3470
- Full-scale experiences with *Therese* class icebreakers. Vargas, G.R., [1990, p.H1-H14, eng] 44-3471
- Summary of Beaufort Sea icebreaker performance. Keinonen, J., et al. [1990, p.I1-I10, eng] 44-3472
- Ice class upgrade of M.V. *Arctic*. Ivce, M.P., [1990, p.K1-K9, eng] 44-3473
- Design and construction of the icebreaker *Oden*. Liljestrom, G.C., et al. [1990, p.L1-L10, eng] 44-3474
- Research vessel for the U.S. Antarctic Program. Kennedy, H., et al. [1990, p.J1-J18, eng] 44-3475
- Design method for icebreaker hull loads due to level icebreaking. St. John, J.W., et al. [1990, p.O1-O14, eng] 44-3477
- Modeling of ice class shafting system. Cowper, D.N.B., et al. [1990, p.P1-P22, eng] 44-3478
- Propulsion machinery concepts for icebreaking ships. Schmid, H., [1990, p.Q1-Q23, eng] 44-3479
- Arctic corrosion and its effects on the strength of icebreakers. Brown, T.G., et al. [1990, p.S1-S11, eng] 44-3481
- Overview of the Canadian Arctic Shipping Pollution Prevention Regulations. McCallum, J.S., [1990, p.U1-U8, eng] 44-3482
- Ice load criteria for arctic vessels. Churcher, A.C., et al. [1990, p.W1-W32, eng] 44-3484
- Strength requirements in the proposed CASPPR. Daley, C.G., [1990, p.X1-X13, eng] 44-3485
- Materials aspects for arctic vessels. Tomin, M.J., [1990, p.Y1-Y10, eng] 44-3486
- Subdivision and stability for arctic vessels. Kendrick, A., [1990, p.Z1-Z10, eng] 44-3487
- Design criteria for arctic vessels. Browne, R.P., [1990, p.AA1-AA9, eng] 44-3488
- Resistance of snow to motion of an icebreaker. Gramuzov, E.M., [1989, 9p., eng] 44-3734
- Icebreaker midbody resistance—phase 2: beam variation. Baker, D., et al. [1990, 176p., eng] 44-3769
- Breaking through the Arctic. West, R.M., [1990, p.57-60, eng] 44-3781
- Comparative model tests in ice of a Canadian Coast Guard R-class icebreaker. Tatinclaux, J.C., et al. [1989, p.11-118, eng] 44-3984
- Nuclear plant safety. *Seymour* LASH/containership. Vorobev, V., et al. [1989, p.26-28, eng] 44-4120
- Comparative model tests in ice of a Canadian Coast Guard R-class icebreaker. Tatinclaux, J.C., et al. [1990, p.31-52, eng] 44-4421
- Oden: icebreaker technology for the year 2000. Johansson, B.M., et al. [1990, p.53-83, eng] 44-4422
- Proceedings. POAC 89. Vol.3. [1989, p.1188-1611, eng] 44-4425
- Oden: a state-of-the-art icebreaker. Johansson, B.M., et al. [1989, p.1229-1265, eng] 44-4428
- Research on icebreaking process. Varsta, P., [1989, p.1297-1317, eng] 44-4431
- Hull structure of the icebreaker *Oden*. Lindberg, K., et al. [1989, p.1468-1485, eng] 44-4443
- Hull shape and a ship's navigability in ice. Tsol, L.G., [1989, p.1486-1492, eng] 44-4444
- Experiences with the new Finnish icebreaker *Oden*. Backman, A., [1989, p.1508-1514, eng] 44-4446
- Canadian Coast Guard icebreakers keeping Canada moving through winter ice. [1989, p.16-18, eng] 44-4467
- See *also*: Ice breaking
- Iceland**
- Glacial history of Iceland during the past three million years. Einarsson, T., et al. [1988, p.227-234, eng] 44-13
- Sea ice off the Icelandic coasts. Jakobsson, T., [1990, p.106-110, eng] 44-4075
- Myrdalsjökull
- Glacial geomorphological research at Myrdalsjökull. Iceland, 1977-86. The northern margin. Krüger, J., [1988, p.68-77, eng] 44-2578
- Iceland Sea**
- Biological effect of oceanographic variations in the Iceland Sea. Stefansson, U., et al. [1989, p.427-455, eng] 44-3431
- Icequakes**
- Icequakes: a model technique for liquefaction potential assessment. [1989, p.56, eng] 44-1930
- Seismic telemetry network at Showa Station. Kamatsu, J., et al. [1989, p.1-12, eng] 44-2388
- Icequakes on Ekström Ice Shelf near Atka Bay, Antarctica. Von der Cullen-Woldenburg, H., [1990, p.31-36, eng] 44-3718
- Icing**
- Investigation of surface water behavior during glaze ice accretion. Hensman, K.J., Jr., et al. [1989, p.140-147, eng] 44-5
- Atmospheric icing climatologies of two New England mountains. Ryerson, C.C., [1988, p.1261-1281, eng] 44-66
- Ice removal from broadcast towers by low-frequency vibrations. Mulherin, N.D., et al. [1988, 6p., eng] 44-614
- Icing of tall structures in the lowlands of the USSR. Glukhov, V.G., [1989, 141p., rus] 44-761
- Sea spray icing on marine structures. Vefsnmo, S., et al. [1988, p.571-579, eng] 44-1174
- Labrador wind and wave environment. Lee, W.T., [1987, 78p., eng] 44-1231
- Ice problems and ice research in Norway. Tesaker, E., [1985, p.227-245, eng] 44-2039
- Exploration drilling and production in the Barents Sea. Tøstet, S., et al. [1990, p.25-30, eng] 44-2203
- Droplet sizing instrumentation used for icing research. Hovewac, E.A., [1989, 53p., eng] 44-2808
- Evaluation of state-of-the-art drilling platform ice accretion models. Brown, R.D., et al. [1988, p.131-136, eng] 44-3319
- See *also*: Aircraft icing; Glaze; Ice loads; Power line icing; Road icing; Ship icing
- Icing detection**
- See *also*: Ice detection
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- Surface-blowing anti-icing technique for aircraft surfaces. Tabrizi, A.H., et al. [1989, p.354-359, eng] 44-4
- Atmospheric icing rates with elevation on northern New England mountains. U.S.A. Ryerson, C.C., [1990, p.90-97, eng] 44-2664
- Prediction of vessel icing for near-freezing sea temperatures. Overland, J.E., [1990, p.62-77, eng] 44-3346
- Use of ship icing models for forecasting icing rates on sea-going ships. Zakrzewski, W.P., et al. [1989, p.1454-1467, eng] 44-4442
- See *also*: Ice accretion
- Illuminating**
- Sequential flash for photographing trajectories of saltating particles. Bird, K.G., et al. [1989, p.130-133, eng] 44-514
- Variations of artificial illumination in the Far North. Dubenskaia, V.F., et al. [1990, p.41-43, rus] 44-4485
- Illumination**
- See *also*: Sunlight
- Impact**
- Probabilistic evaluation of design iceberg collision. McTaggart, K.A., et al. [1990, p.85-101, eng] 44-4489
- Impact strength**
- Fracturing mechanism and dust yield dynamics in impact breakage of permafrost. Lationov, V.R., et al. [1988, p.438-441, eng] 44-223
- Experimental studies on a powder-snow avalanche. Kawada, K., et al. [1989, p.129-134, eng] 44-561
- Prediction of multiyear ice impact loads utilizing Hans Island data. Walden, J.T., et al. [1982, p.311-322, eng] 44-1149
- Wave-driven growler impact on platform columns. Spring, W., [1988, p.351-362, eng] 44-1153
- Failure of ice sheets under transverse loads. Wierzbicki, T., et al. [1988, p.369-380, eng] 44-1155
- Crack propagation on floating structures in ice-infested waters. Swamidass, A.S.J., et al. [1988, p.527-537, eng] 44-1170
- Experimental study on the resistance to sliding of breakwaters. Takeda, H., et al. [1988, p.671-681, eng] 44-1182
- Response of semi-submersibles in ice environment. Arockiasamy, M., et al. [1985, p.33-46, eng] 44-1300
- Resistance of concrete to ice abrasion—a review. Hoff, G.C., [1988, p.427-455, eng] 44-1740
- Wave-induced bergy bit motion near a floating platform. Mak, L.M., et al. [1990, p.205-215, eng] 44-2225
- Avalanche impact load at snow shed. Matsuba, Y., [1985, p.245-250, jpn] 44-2323
- Determination of impact force by model avalanche tests. Nishimura, K., et al. [1986, p.272-277, jpn] 44-2468
- Arctic Submarine Experimental Pool. Oblinger, L.P., [1989, p.244-248, eng] 44-3150
- Damage due to ship collisions with icebergs. Aldwinckle, D.S., et al. [1984, p.D1-D14, eng] 44-3453
- Ship-ice floe collision analysis. Matsuishi, M., et al. [1984, p.E1-E13, eng] 44-3454
- Mobile offshore units operating in ice-infested waters. Nessim, M.A., et al. [1984, p.H1-H12, eng] 44-3457
- System development for measurement of full scale ship ice impact forces. Ghoneim, G.A.M., et al. [1984, p.K1-K15, eng] 44-3459
- Probabilistic analysis of summer impact loads on arctic offshore structures. Tunik, A.L., et al. [1990, p.N1-N10, eng] 44-3476
- Design method for icebreaker hull loads due to level icebreaking. St. John, J.W., et al. [1990, p.O1-O14, eng] 44-3477
- On a frequency analysis of ice impacts. Javanainen, M., [1989, 8p., eng] 44-3735
- Impact tests**
- Frozen soil impact tests of strategic bombs. Dockery, H.A., et al. [1987, 25p., eng] 44-960
- Test to determine concrete resistance to ice abrasion. Nawwar, A.M., et al. [1988, p.401-426, eng] 44-1739
- Acoustic measurements and applications of kinetic impacts on ice. De Heering, P., [1987, p.611-617, eng] 44-1743
- Level ice resistance of USCGC *Polar Sea* in Antarctica. Voelker, R.P., et al. [1988, 94p., eng] 44-1944
- Impurities**
- Snow cover affected by a city. Prokacheva, V.G., et al. [1989, 176p. + append., rus] 44-2804
- Chernobyl fallout in Greenland ice. Dibb, J.E., [1990, p.51-54, eng] 44-4161
- See *also*: Gas inclusions; Snow impurities
- Indexes (ratios)**
- Avalanche-hazard index. Schaerer, P., [1989, p.241-247, eng] 44-582
- India**
- Yamuna River
- Snowmelt runoff studies in upper Yamuna basin. Parsad, R.S., et al. [1989, p.21-218, eng] 44-4015
- Indicating instruments**
- See *also*: Monitors; Thermostats
- Indices**
- See *also*: Permafrost indicators

- Indoor climates**
Reference guide for building diagnostics equipment and techniques. McKenna, C.M., et al. (1989, 64p., eng) 44-777
- Industrial buildings**
Causes of deformation of buildings on permafrost in railroad district of Vorkuta. Belotserkovskaya, G.V., et al. (1989, p.102-106, eng) 44-3003
- Industrial development**
See *also*: Economic development
- Infiltration**
See *also*: Permeability; Seepage
- Inflatable structures**
Design of an advanced pneumatic deicer for the composite rotor blade. Weisend, N.A., Jr., (1989, p.947-950, eng) 44-1321
- Infrared equipment**
Measurements of infrared emissivity of thin sea ice. Aota, M., et al. (1988, p.187-195, jpn) 44-739
First year ice temperature in Okhotsk Sea. Aota, M., et al. (1989, p.111-116, eng) 44-1808
- Infrared mapping**
Possibility of determining winter sea ice characteristics from satellite IR and radar imaging data. Provorkin, A.V., (1989, p.68-74, rus) 44-2825
Remote sensing of sea ice. Hawkins, J.D., (1989, p.121-124, eng) 44-3143
Applications of thematic mapper thermal infrared imagery. Bélanger, J.R., et al. (1990, p.231-238, eng) 44-3667
- Infrared photography**
Infrared snow cover detection by warming of sea ice/snow surface. Ikeda, M., (1989, p.552-560, eng) 44-409
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- Internal friction**
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International cooperation among arctic researchers. Sokolov, V.E., et al. (1989, p.129-134, rus) 44-684
Arctic in world affairs. Young, O.R., (1989, 33p., eng) 44-1287
Results of the Conference of Arctic-Rim Countries, Leningrad, Dec. 1988. Kotliakov, V.M., et al. (1989, p.104-110, eng) 44-2439
Global commons: the arctic in world affairs. Young, O.R., (1990, p.52-61, eng) 44-2955
Jerry Brown urges cooperation. (1989, p.11, rus) 44-2956
Report of the U.S. Arctic Research Commission, 1988-1989. (1990, 40p., eng) 44-3110
Soviet-American cooperation in the Arctic. Arikalnen, A.I., et al. (1989, p.58-70, eng) 44-3292
Conference of arctic and nordic countries on coordination of arctic research; Proceedings, Pt.1 and Pt.2. (1990, 366p., + 445p., eng) 44-4061
Arctic research and its role in the solution of global problems. Israel, I.U.A., et al. (1990, p.24-31, eng) 44-4062
Arctic climate and its variations: aspects of international cooperation. Voskresenski, A.I., et al. (1990, p.153-163, eng) 44-4084
- Interstitial ice**
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- Ion diffusion**
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Major ions and scavenging of sulphate in the Norwegian Arctic. Joranger, E., et al. (1989, p.2463-2469, eng) 44-2259
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Agricultural use of melt water in Hopar settlement, Pakistan. Butz, D., (1989, p.35-39, eng) 44-545
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Seasonal thawing of soils, with underlying ice-saturated ground. Gavril'ev, P.P., et al. (1988, p.41-48, rus) 44-1963
- Islands**
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Isotopic studies of natural water and ice in Western Siberia. Kritsuk, L.N., et al. (1989, p.76-94, rus) 44-1257
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Snow freezes moments in time. Koerner, R.M., et al. (1988, p.1-5, eng) 44-1534
Stable oxygen and carbon isotope analyses. Siegenthaler, U., et al. (1986, p.407-422, eng) 44-2043
Lead isotope ratios in arctic aerosols. Sturges, W.T., et al. (1989, p.2513-2519, eng) 44-2265
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Disaster created by snow and ice in Hokkaido. Yamada, T., et al. (1988, p.179-184, jpn) 44-2681
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- Frost damage to concrete structures in Hokkaido harbors. Ito, A., et al. (1989, p.241-246, jpn) 44-3634

—Hokkaido Island

- Variation in ice concentration off Hokkaido Island. Aota, M., et al. (1988, p.161-175, jpn) 44-737

—Honshu

- Snow cover distribution in Honshu from satellite imagery. Muramatsu, I., et al. (1990, p.1-11, jpn) 44-3401

—Nagaoka City

- Snow removal and air conditioning system for Nagaoka City. Umemura, T., et al. (1989, p.255-274, jpn) 44-2355

—Niigata Prefecture

- Snowfall and tropospheric mid-level jet. Shiraki, M., (1988, p.1-2, eng) 44-1612

- Weather conditions at times of avalanches in Niigata Prefecture. Izumi, K., (1987, p.422-426, jpn) 44-2556

—Sapporo

- Snow cover observations in Sapporo, 1986-87. Akitaya, E., et al. (1988, p.1-9, jpn) 44-456

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- Statistical analysis of pH in rain and snow. Watanabe, N., et al. (1988, p.389-397, eng) 44-1299

- System developments of snow removal in Sapporo. Terashima, S., et al. (1988, p.174-178, jpn) 44-2680

- Vertical profiles of snow cover on level land in Sapporo, 1988-89. Akitaya, E., et al. (1989, p.1-6, jpn) 44-3041

- Chemical studies of snow in Japan. Suzuki, K., (1989, p.14-26, eng) 44-3995

—Sea of Okhotsk

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- Ice-ocean eddies in the Sea of Okhotsk. Wakatsuchi, M., et al. (1990, p.585-594, eng) 44-3692

—Soya Strait

- Drift ice in the Soya Strait. Akagawa, M., (1985, p.77-78, jpn) 44-60

- Ocean waves in the region of the Soya Warm Current. Ohshima, K.I., (1988, p.117-129, jpn) 44-736

Japan, Sea

- Structure of a convergent cloud band over the Japan Sea in winter. Nagata, M., (1987, p.871-883, eng) 44-1303

- Convective snow band over Japan Sea, Part 2. Ikawa, M., (1988, p.13-43, eng) 44-1613

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- See *also*: Hydraulic jets

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- Cold resistance of a seam in a high strength steel welded joint. Snisar, V.V., et al. (1988, 3p., eng) 44-1236

- Effect of residual stress on the cold-resistance and endurance of welded joints. Larionov, V.P., et al. (1990, p.891-896, eng) 44-3876

- Resistance of welded joints to crack propagation at low temperatures. Bondarovich, L.A., et al. (1990, p.38-43, rus) 44-4346

- Effect of stresses on technological strength of steels. Mikhailov, V.E., et al. (1990, p.150-153, rus) 44-4370

- Prevention of crack formation in T-joints during welding in winter. Savvinov, I.T., (1990, p.202-206, rus) 44-4381

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- Fatigue resistance of steel structures in the Far North. Shul'ginov, B.S., (1990, p.248-253, rus) 44-4392

Karst

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- Karst denudation in Norway. Lauritzen, S.E., (1990, p.157-167, eng) 44-4418

- See *also*: Thermokarst

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- Ocean drilling in Prydz Bay and Kerguelen Plateau. Sakai, H., (1988, p.21-26, jpn) 44-382

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- Winter atmospheric circulation of Korea, stationary waves. Lee, D.K., et al. (1988, p.16-35, eng) 44-1447

- Tropospheric circulation and winter temperature in Korea. Kang, I.S., (1988, p.1-15, eng) 44-1448

- Winter atmospheric circulation of Korea, transient eddies. Lee, D.K., et al. (1988, p.1-21, eng) 44-1449

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- See *also*: Work time standards

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- Unique new cold weather testing facility. Eaton, R.A., (1988, p.745-750, eng) 44-627

- Designing a new science facility for McMurdo Station. Haehnle, R.J., (1988, p.4-6, eng) 44-1313

- Data acquisition: first the FERF then the world. Knuth, K.V., (1989, p.136-138, eng) 44-1651

- 25 years of the avalanche and mudflow control laboratory. Laptev, M.N., et al. (1989, p.94-96, rus) 44-2613

- Developments in ice stations of the US and other NATO countries. Stoliarov, N., (1989, p.72-73, rus) 44-2627

- Arctic Submarine Experimental Pool. Oblinger, L.P., (1989, p.244-248, eng) 44-3150

Laboratory techniques

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- Laboratory method of determining the frost heave of soils. Ganeles, L.B., et al. (1989, p.41-46, rus) 44-2150

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- Low-temperature test object temperature variations. Ostapenko, L.S., (1990, p.649-654, eng) 44-3899

- Measurement of thermal conductivity and heat capacity from 4 to 300 K. Kwok, R.S., et al. (1990, p.809-813, eng) 44-3907

- Solvent extraction for solute preconcentration from water. Leggett, D.C., et al. (1990, p.1355-1356, eng) 44-3922

Labrador Sea

- C-band SAR observations of marginal ice zone rheology in the Labrador Sea. Drinkwater, M.R., et al. (1989, p.522-534, eng) 44-406

- Sea ice mix. line relevant to the Labrador and Newfoundland shelves. Ikeda, M., (1989, p.535-540, eng) 44-407

- Infrared snow cover detection by warming of sea ice/snow surface. Ikeda, M., (1989, p.552-560, eng) 44-409

- Labrador Sea wave and ice measurements, Mar. 1987. Thomas, W.L., (1988, 34p., eng) 44-698

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- Lacustrine sedimentary record of ice-dammed Neoglacial Lake Alsek. Schmok, J.P., et al. (1989, p.2092-2105, eng) 44-2273

- Denudation rates in the Arctic estimated from lake sediments on Spitsbergen, Svalbard. Svendsen, J.I., et al. (1989, p.153-168, eng) 44-2387

- Sedimentation in proglacial Ivory Lake, Southern Alps, New Zealand. Hicks, D.M., et al. (1990, p.26-42, eng) 44-2661

- Pb(210) and Cs(137) chronology of sediments from small, shallow arctic lakes. Hermanson, M.H., (1990, p.1443-1451, eng) 44-3628

- Water chemistry of the ultra-oligotrophic lake of New-Quebec Crater. Ouellet, M., et al. (1989, p.184-195, fre) 44-4011

- Effect of water depth on glaciolacustrine sedimentation. Fyfe, G.J., (1990, p.147-164, eng) 44-4475

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- Study on jokulhlaups (glacier outburst floods) of the Yarkent River. Chen, Y.N., et al. (1989, p.169-177, eng) 44-3167

- Debris flows and lake bursts from glaciers in China. Deng, Y.X., (1989, p.205-220, chi) 44-3892

- Drumlins, subglacial meltwater floods, and ocean responses: comment and reply. Kehew, A.E., et al. (1990, p.479-480, eng) 44-4144

Lake effects

- Lake-effect snowshowers. Horne, T.A., (1989, p.91, eng) 44-1818

- DDT II: computerized lake-effect snow forecasts. Dockus, D.A., (1988, p.18-26, eng) 44-2088

- Inclusion of sensible heating in convective parameterization applied to lake-effect snow. Ellenton, G.E., et al. (1979, p.551-565, eng) 44-3748

Lake ice

- Winter cover of a high-mountain Mediterranean lake (Estany Redó, Pyrenees). Catalan, J., (1989, p.519-527, eng) 44-6

- Northern lakes and rivers. Mackay, W.C., ed. (1989, 112p., eng) 44-137

- Freeze-up and break-up of ice cover on small arctic lakes. Woo, M.Y., (1989, p.56-62, eng) 44-141

- Applied hydrology in the development of northern basins. (1988, 347p., eng) 44-232

Ice conditions of the Finnish lakes in the year 2050.

- Kuusisto, E., (1988, p.245-252, eng) 44-253

- Ice thickness changes on Lake Hoare, southern Victoria Land, Antarctica. Simmons, G.M., Jr., et al. (1989, p.235-236, eng) 44-658

- Sand/ice interactions and sediment deposition in ice-covered lakes. Simmons, G.M., Jr., et al. (1989, p.237-240, eng) 44-659

- Marine meteorological and oceanographic products of the OPC (Revision 1). Feit, D.M., (1989, 89p., eng) 44-790

- How to reduce winter ice damage to marinas. Wortley, C.A., (1985, 2p., eng) 44-1064

- Understanding ice and its behavior in marinas. Wortley, C.A., (1985, 2p., eng) 44-1065

- Design and use of floating docks in lake ice conditions. Wortley, C.A., (1988, p.617-626, eng) 44-1178

- Climatic change data inferred from a frozen lake in Arctic Canada. Blake, W., Jr., (1989, p.41-54, eng) 44-1856

- Peak discharge from ice-dammed Ape Lake, British Columbia. Desloges, J.R., et al. (1989, p.349-354, eng) 44-1896

- Rare second year—lake ice cover in the Canadian High Arctic. Adams, W.P., et al. (1989, p.299-306, eng) 44-1932

- Ice cover effects on the hydraulics of impoundment reservoirs. Majewski, W., (1987, 132p., pol) 44-1940

- Crowd induced deflection of a lake ice cover. Sinha, N.K., (1990, p.161-167, eng) 44-2220

- Estimation of the maximal ice thickness in Ogawara Lake. Hirayama, K., et al. (1986, p.138-141, jpn) 44-2454

- Investigations of ice ride-up observed at Lake Ogawara. Sakamoto, N., et al. (1987, p.322-326, jpn) 44-2546

- Natural cold. Poplavskii, V.A., (1989, 171p., rus) 44-2796

- Use of lake water temperature and ice cover as climatic indicators. Robertson, D.M., (1990, 355p., eng) 44-3270

- Role of thermal expansion of ice in forming lake shoreline profiles. Tesaker, E., (1987, p.249-257, eng) 44-3315

- Nearshore Great Lakes ice cover. Bolsenga, S.J., (1988, p.99-105, eng) 44-3502

- Modelling the thermal regime of a lake during the winter season. Sahiberg, J., (1988, p.151-159, eng) 44-3506

- Investigation of the LIZ-3 Dew Line Station water supply lake. Kovacs, A., (1990, 10p., eng) 44-3752

- Impact of global warming on Great Lakes ice cycles. Assel, R.A., (1989, p.511-530, eng) 44-4251

Lake water

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- Winter water quality in lakes and streams. Calkins, D.J., et al. (1988, 8p., eng) 44-227

- Use of SPOT HRV data in the Corps of Engineers dredging program. Merry, C.J., et al. (1988, p.1295-1299, eng) 44-435

- Use of SPOT HRV data in a Corps dredging operation in Lake Erie. Merry, C.J., et al. (1987, p.49-58, eng) 44-946

- External water exchange in lakes of the USSR. Sorokin, I.N., (1988, 144p., rus) 44-1500

- Hydrodynamic model to calculate heat content of lakes. Sahiberg, J., (1987, 54p., eng) 44-1602

- Use of lake water temperature and ice cover as climatic indicators. Robertson, D.M., (1990, 355p., eng) 44-3270

- Investigation of the LIZ-3 Dew Line Station water supply lake. Kovacs, A., (1990, 10p., eng) 44-3752

- Water chemistry of the ultra-oligotrophic lake of New-Quebec Crater. Ouellet, M., et al. (1989, p.184-195, fre) 44-4011

- Hydrological regime of lakes in the Mackenzie Delta, Northwest Territories, Canada. Bigas, S.C., (1990, p.163-174, eng) 44-4049

Lakes

- Flooding hydrology of Mackenzie Delta lakes. Marsh, P., et al. (1989, p.41-49, eng) 44-490

- Freezing and thawing of tundra lakes. Brochu, M., (1988, p.127-128, fre) 44-1107

- External water exchange in lakes of the USSR. Sorokin, I.N., (1988, 144p., rus) 44-1500

- Effect of weather variability on the energy balance of a lake in the Hudson Bay lowlands, Canada. Bello, R., et al. (1990, p.98-107, eng) 44-2665

- Modelling the thermal regime of a lake during the winter season. Sahiberg, J., (1988, p.151-159, eng) 44-3506

- Pb(210) and Cs(137) chronology of sediments from small, shallow arctic lakes. Hermanson, M.H., (1990, p.1443-1451, eng) 44-3628

- Water sampling stations in AK as of Sep. 1988. Still, P.J., et al. (1989, 189p., eng) 44-3737

- Sub-ice spring melt water circulation in a small lake. Roberge, J., et al. (1989, p.298-302, eng) 44-4031

- Glacier recession and lake shrinkage in Central Asia. Shi, Y.F., et al. (1990, p.261-265, eng) 44-4206

- Effects of climate changes on the Laurentian Great Lakes levels. Croley, T.E., II, et al. (1989, p.411-434, eng) 44-4250

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Laminar flow
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Experimental studies on downward freezing of pure and saline water. Brewster, R.A., [1989, 168p., eng] 44-968
Analysis of turbulent flow freezing transients. Thomason, S.B., et al. [1989, p.368-377, eng] 44-1009
Laminar flow control leading edge glove flight test article. Pearce, W.E., et al. [1984, 112p., eng] 44-1405
Laminar flow integration: flight tests status and plans. Wagner, R.D., et al. [1986, p.485-518, eng] 44-1406
Solidification around a cylinder in laminar cross flow. Chiang, H., et al. [1989, p.322-327, eng] 44-2389
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Snowmelt in farmland development. Sawada, N., et al. [1989, p.115-118, jpn] 44-3631
Forecasting of changes in natural conditions of West Siberia. Popov, A.I., ed. [1988, 233p. (Pertinent p.62-84, 101-168, 187-216), eng] 44-4411

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Role of land ice and snow in climate. Kuhn, M.H., [1989, p.17-28, eng] 44-2782
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Land reclamation
Advisability of using drying drums for reclamation of frozen soils. Diakonov, P.I.U., et al. [1989, p.53-55, rus] 44-2647
Reclamation of cryogenic soils in the USSR. Uglanov, I.N., [1989, p.48-51, rus] 44-3553
Forest reclamation and swamps in Karelia. Orlov, E.D., [1988, p.44-59, rus] 44-3705
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Landforms
Geomorphology of the Pleistocene glaciation, Sichuan Province. Yi, C.L., [1989, p.76-81, chi] 44-653
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Landforms and landform evolution in West Germany. Ahnert, F., ed. [1989, 347p., eng] 44-878
Landforms due to glacial erosion in the Luojishan Mt. Liu, G.N., [1989, p.249-259, chi] 44-2420
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LANDSAT
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Recent glacial evolution in Valle Aurina (Pusterzi Alps). Della Ventura, A., et al. [1986, p.39-48, ita] 44-520
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Landscape development
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Landscape-geochemical analysis of frozen-taiga ecosystems. Shchetnikov, A.I., [1989, 127p., rus] 44-2068
Periglacial processes in Finnmark, Norway. Meier, K.D., [1987, 289p. ger] 44-2069
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Relation between landslides and snow. Shuzui, H., et al. [1988, p.13-18, jpn] 44-3436
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Arctic research of the United States, Vol.3. [1989, 71p., eng] 44-471
Good solution to the wilderness snow sensor problem. Brandow, C.A., [1989, p.108-117, eng] 44-510
Maritime law problems in the Arctic Ocean. Fleischer, C.A., [1987, p.363-373, eng] 44-604
United States arctic research plan biennial revision: 1990-1991. Brown, J., ed. [1989, 72p., eng] 44-746
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Graphitic carbon in snow. Srivastava, V., et al. [1989, p.151-160, eng] 44-1949
Aerosol light absorption by soot in remote environments. Clarke, A.D., [1989, p.161-171, eng] 44-1950
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Analysis of control sites: limnology and glaciology. Final report. Young, T.C., et al. (1979, 160p., eng) **44-2742**

Water chemistry of the ultra-oligotrophic lake of New-Quebec Crater. Ouellet, M., et al. (1989, p.184-195, fre) **44-4011**

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Differential equation connected with the dendritic growth of crystals. Hammersley, J.M., et al. (1989, p.43-75, eng) **44-2395**

Velocity effects in unstable solidification. Strain, J., (1990, p.1-15, eng) **44-3165**

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Moraines: source of glaciological information. Kotliakov, V.M., ed. (1989, 236p., rus) **44-36**

Geological indicators of former glaciations in the middle Kolyma basin. Chanyshva, M.N., (1989, p.60-67, eng) **44-1003**

Hydrogeologic and geotechnical properties of pleistocene materials in Wisconsin. Muldoon, M.A., et al. (1988, 64p., eng) **44-1058**

Problems in engineering-geological research in the cryolithozone. Ershov, E.D., ed. (1989, 381p., rus) **44-1302**

Correlating glacial deposits in the European USSR using lithological data. Gaigalas, A.I., et al. (1989, p.179-183, rus) **44-1921**

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Effects of ice jam on submersed macrophyte communities. Nichols, S.J., et al. (1989, p.2364-2370, eng) **44-1527**

Ice effects in tidal marsh development in Quebec, Canada. Dionne, J.C., (1989, p.171-210, eng) **44-3273**

Food to deep sea sediment transfers along the north-eastern Canadian continental margin: models and data. Andrews, J.T., (1990, p.55-70, eng) **44-3532**

Ice-pushed boulders on the shores of Gotland, Sweden. Philip, A.I. (1990, p.661-676, eng) **44-4487**

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Frozen soil deformation and failure under different loading. Vialov, S.S., et al. (1989, p.465-471, eng) **44-921**

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Time dependent response of frozen soils subject to triaxial stress. Hampton, C.N., et al. (1989, 5 refs., eng) **44-934**

Pilot experiment to measure arctic pack-ice driving forces. Crossdale, K.R., et al. (1988, p.381-395, eng) **44-1156**

Bearing capacity of the foundations of offshore structures. Sekiguchi, K., (1988, p.411-429, eng) **44-1159**

Compressibility of sand-ice system. Yousef, H., (1988, p.497-506, eng) **44-1167**

Ultimate loads for corrugated-steel, barrel-type shell structures. Briassoulis, D., et al. (1987, 52p., eng) **44-1408**

State of the art of pavement response monitoring systems for roads and airfields. (1989, 401p., eng) **44-1636**

Instrumentation and pavement design. White, T., (1989, p.2-8, eng) **44-1637**

High speed data acquisition system for PCC pavement testing. Okamoto, P.A., (1989, p.128-135, eng) **44-1650**

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Iowa Department of Transportation pavement instrumentation. Dankbar, R., (1989, p.304-307, eng) **44-1666**

Resilient modulus determination for frost conditions. Chamberlain, E.J., et al. (1989, p.320-333, eng) **44-1668**

Full scale pavement test international joint research. Dumont, A.G., et al. (1989, p.370-375, eng) **44-1672**

Experience of pavement instrumentation at TRRL. Addis, P.R., (1989, p.385-393, eng) **44-1674**

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Nonlinear response of undrained soil under unsymmetric loading. Prasad, K.S.R., et al. (1990, p.67-74, eng) **44-2208**

Ship icebreaking resistance with flooding water effect. Wang, S.L., et al. (1990, p.127-134, eng) **44-2215**

Crowd induced deflection of a lake ice cover. Sinha, N.K., (1990, p.161-167, eng) **44-2220**

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Response of a Beaufort Sea clay to monotonic and cyclic loading. McCarron, W.O., et al. (1990, p.329-336, eng) **44-2243**

Dynamics of tangential forces of frost heave in the Chita region. Elgin, B.B., (1985, p.50-54, rus) **44-2372**

Estimation of icebreaking resistance by ship motion simulation. Ishibashi, Y., (1984, p.11-1-1/10, eng) **44-3460**

Design method for icebreaker hull loads due to level icebreaking. St. John, J.W., et al. (1990, p.O-1-O-14, eng) **44-3477**

Snow cover effects on antarctic sea ice thickness. Ackley, S.F., et al. (1990, p.16-21, eng) **44-3810**

Subzero treatment of construction alloys. Pisarenko, G.S., et al. (1990, p.3-9, rus) **44-4339**

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Ultimate loads on fractured parts at low temperatures. Kostenko, N.A., et al. (1990, p.114-119, rus) **44-4362**

Effect of low-temperature strengthening on durability of structures. Kuranov, B.A., et al. (1990, p.120-125, rus) **44-4363**

Effects of roughness and thinning of weld rims on strength of structures. Roslanov, V.A., (1990, p.197-202, rus) **44-4380**

A method for evaluation of fracture resistance in metals. Savrasov, V.V., (1990, p.207-210, rus) **44-4382**

Cyclic strength of BrB2 alloy at temperatures of 293 and 77 K. Samarin, V.K., (1990, p.210-213, rus) **44-4383**

Elasticity tests under conditions of off-axis of the applied loads. Skripnik, N.V., (1990, p.219-224, rus) **44-4386**

Fatigue resistance of steel structures in the Far North. Shul'ginov, B.S., (1990, p.248-253, rus) **44-4392**

See (also): Dynamic loads; Ice loads; Ice pressure; Pile load tests; Snow loads; Soil pressure; Static loads; Water pressure; Wind pressure

Loams

Soil freezing and soil water in sandy loam. Black, P.B., et al. (1989, p.2205-2210, eng) **44-2135**

Locks (waterways)

Rehabilitation of freeze-thaw damaged concrete lock walls. McDonald, J.E., (1987, 317p., eng) **44-1053**

Condition survey of lock number 7, Monongahela River. Final report. Stowe, R.L., (1987, 154p., eng) **44-1235**

Unconventional power sources for ice control at locks and dams. Nakato, T., et al. (1989, p.107-126, eng) **44-1771**

Methods to reduce ice accumulation on miter gate recess walls. Rand, J.H., et al. (1989, 5p., eng) **44-3793**

Loess

Reinforcing and stabilizing buildings on sagging loess soils. Gilman, I.A.D., (1989, 159p., rus) **44-9**

Middle Wisconsin climate fluctuations recorded in central Alaskan loess. Begét, J., (1990, p.3-13, eng) **44-3530**

Logging

See (also): Electrical logging; Radioactive logging; Recording; Well logging

Logistics

Ship operations, 1986-1987. Marthaler, J.G., (1989, p.306-309, eng) **44-664**

Support for an arctic camp for 10 persons for 30 days. Final report. Welsh, J.P., et al. (1988, 22p., eng) **44-675**

Science support requirements in a modern icebreaker design. Hayes, R.M., (1988, p.507-518, eng) **44-1168**

JARE-28 winter activities, 1987. Ayukawa, M., (1989, p.234-268, jpn) **44-1471**

JARE-30 field work in Sör Rondane Mountains, 1988-1989. Moriaki, K., et al. (1989, p.293-319, jpn) **44-1472**

Antarctic support operations, 1987-1988. Becker, R.A., (1988, p.219-221, eng) **44-2142**

U.S. Navy activities in Antarctica, 1987-1988. Fisher, D.D., (1988, p.222-224, eng) **44-2143**

Fifty million dollars of snow removal. Lazare, G.M., (1990, p.10-28, eng) **44-2756**

Five-stage snow removal plan. Hoover, T.R., (1989, p.12-13, eng) **44-2757**

Aircraft operation in the Arctic. McAnor, R.W., (1989, p.56-84, eng) **44-3138**

Requirements for multipurpose supply ships for the north. Bugakov, V.N., (1989, p.11-15, rus) **44-3213**

Operation Deep Freeze 89-90 end of season report (1990, var. p., eng) **44-3327**

Space and airborne technology applications to antarctic operations. Thomson, R.B., ed. (1989, 159p., eng) **44-3444**

Long range forecasting

Direction toward improved streamflow forecasting in the Western mountains. Day, G.N., et al. (1989, p.79-89, eng) **44-507**

Long range forecasting by paleogeographic reconstruction of avalanche activity. Vashchalova, T.V., (1989, p.145-155, rus) **44-1583**

Forecasting multi-year variations in the thermal regime of soils. Skrabbin, P.N., et al. (1988, p.113-121, rus) **44-1969**

- Forecasting ice cover load capacity, ice drift, and ice clearing in reservoirs. Lobovikova, Z.P., [1989, p.48-51, rus] **44-2929**
- Low temperature research**
- Low-temperature performance of fast photomultipliers. McMillan, J.E., et al., [1989, p.377-382, eng] **44-119**
- Unique new cold weather testing facility. Eaton, R.A., [1988, p.745-750, eng] **44-627**
- Cold regions environmental engineering: tomorrow's challenges. Smith, D.W., [1989, p.134-142, eng] **44-1790**
- Freezing effects on terrestrial algae and cyanobacteria. Davey, M.C., [1989, p.29-36, eng] **44-1798**
- Summary of WINCRUISE II to the Antarctic Peninsula during June and July 1987. Quetin, L.B., et al., [1988, p.149-151, eng] **44-1907**
- Polar Research Board: Antarctic-related activities, July 1987 through June 1988. Smith, A.L., [1988, p.216-217, eng] **44-2140**
- Low-temperature effects on systems for composting explosives-contaminated soils. Ayorinde, O.A., et al., [1989, 18p., eng] **44-2847**
- Errors in the measurements of low temperatures by thermocouples. Fellmuth, V.B., et al., [1988, p.63-73, ger] **44-3572**
- Device for measuring low temperature properties of electrically conducting materials. Buravoi, S.E., et al., [1988, p.100-104, eng] **44-3591**
- Effect of residual stress on the cold-resistance and endurance of welded joints. Larionov, V.P., et al., [1990, p.891-890, eng] **44-3876**
- Climatic engineering. Coveney, D.B., [1990, p.70-79, eng] **44-3920**
- Low-viscosity marine fuel with improved low-temperature properties. Kondrasheva, N.K., [1990, p.422-424, eng] **44-3970**
- Elastomers for subzero oilfield use require careful property compromises. Pugh, T.L., [1990, p.12-16, eng] **44-4132**
- Strength of steel structures at low temperatures. Strizhalo, V.A., ed., [1990, 273p., rus] **44-4338**
- Subzero treatment of construction alloys. Pisarenko, G.S., et al., [1990, p.3-9, rus] **44-4339**
- Creep and mechanical performance of polymers at low temperatures. Askadskii, A.A., et al., [1990, p.25-28, rus] **44-4343**
- Effect of ordered discreteness on the temperature dependence of strength characteristics of GTSK metals. Borisenko, V.A., et al., [1990, p.43-47, rus] **44-4347**
- Physics of alloys of titanium and zirconium at low temperatures. Briukhanov, A.A., et al., [1990, p.47-50, rus] **44-4348**
- Crack propagation in aluminum materials at low temperature. Grabar, I.G., [1990, p.69-73, rus] **44-4352**
- Studies of the localization of plastic flow of metals at low temperatures. Eremin, V.I., et al., [1990, p.90-101, rus] **44-4358**
- Calculation of temperature fields in low-temperature pipelines. Zvereva, T.V., et al., [1990, p.101-106, rus] **44-4359**
- Effect of low-temperature strengthening on durability of structures. Kuranov, B.A., et al., [1990, p.120-125, rus] **44-4363**
- Low-temperature durability of welded steel joints. Kurkin, S.A., et al., [1990, p.125-126, rus] **44-4364**
- Thermal stresses in a glass plate due to freezing and heating. Leonets, V.A., et al., [1990, p.130-135, rus] **44-4366**
- Physical and mechanical model of cold brittleness. Meshkov, I.U.A., [1990, p.141-146, rus] **44-4368**
- Multicyclic fatigue of fluoroplastics at low temperatures. Muradkhanov, V.A., et al., [1990, p.157-160, rus] **44-4372**
- Mechanical properties of carbonic nickel steels at low temperatures. Perkas, M.D., et al., [1990, p.181-186, rus] **44-4377**
- Features of plastic deformation and failure of NT-50 cables. Pokhil, I.U.A., et al., [1990, p.191-197, rus] **44-4379**
- Cyclic strength of BrB2 alloy at temperatures of 293 and 77 K. Samarin, V.K., [1990, p.210-213, rus] **44-4383**
- Metals at cryogenic temperatures under magnetic exposure. Strizhalo, V.A., et al., [1990, p.233-237, rus] **44-4389**
- Effect of phase conversion on viscosity of steels. Shiermin, S.L., et al., [1990, p.243-247, rus] **44-4391**
- Stress-strain state in cylindrical pipes at low temperatures. Urvach, V.N., [1990, p.253-257, rus] **44-4393**
- Low temperature tests**
- AMERIEZ 1986: responses of under-ice fauna to low temperature and stress. Aarset, A.V., [1989, p.170-171, eng] **44-21**
- Cyclic endurance of steels at reduced temperatures. Zorin, E.F., et al., [1989, p.612-613, eng] **44-530**
- Improving low temperature startability of M113 vehicles. Stupich, T.F., et al., [1988, 226p., eng] **44-711**
- Calibration of thermocouples at low temperatures. Nikol'skii, V.S., et al., [1989, p.58-59, eng] **44-903**
- Aircraft engine icing tests. Bartlett, C.S., [1988, 57p., eng] **44-961**
- Flexible pavement layer moduli from Dynaflect and FWD deflections. Badu-Tweneboah, K., et al., [1989, p.245-277, eng] **44-978**
- Bond strength in reinforced concrete at low temperatures. Van der Veen, C., et al., [1989, p.573-582, eng] **44-1117**
- Mechanical properties of concrete at low temperature. Lee, G.C., et al., [1989, p.591-594, eng] **44-1119**
- Thermal and dynamic response of concrete at low temperature. Marshall, A.L., et al., [1988, p.519-526, eng] **44-1169**
- Laboratory engine test study of motor oil flow properties in winter service. Johnson, R.S., [1984, p.6.81-6.93, eng] **44-1188**
- Low temperature pumpability of engine oils. Stambaugh, R.L., [1984, p.6.94-6.101, eng] **44-1189**
- Wax and low temperature engine oil pumpability. Rossi, A., [1985, p.768-776, eng] **44-1190**
- Compositional effects on the low temperature pumpability of engine oils. Alpine, G.A.M., et al., [1987, p.7.79-7.87, eng] **44-1193**
- Factors affecting the low temperature pumpability of used engine oils. May, C.J., et al., [1987, p.7.298-7.306, eng] **44-1194**
- Freezing characteristics of ethylene glycol solution. Fukusako, S., et al., [1989, p.303-309, eng] **44-1204**
- Graphite-epoxy composites subjected to low temperatures. Dutta, P.K., et al., [1989, p.429-435, eng] **44-1206**
- Mechanical properties of A286 alloy at cryogenic temperatures. Kohno, M., et al., [1988, p.85-88, jpn] **44-1312**
- Fiber composite materials in an arctic environment. Dutta, P.K., [1989, p.216-225, eng] **44-1412**
- Low temperature starting of diesel engines using timed spark discharge. Dale, J.D., et al., [1985, 10p., eng] **44-1794**
- Low temperature starting of a diesel engine. Dale, J.D., et al., [1984, 80p., eng] **44-1795**
- Cold climate effects on the properties of polyester wound plastic. Gerasimov, A.A., et al., [1989, p.653-658, eng] **44-1871**
- Fatigue strength of polymer films at subzero temperature. Parfeev, V.M., et al., [1988, p.685-693, eng] **44-1881**
- Strength of fiberlasses and organoplastics under low climatic temperatures. Kuz'min, S.A., et al., [1989, p.49-53, eng] **44-1882**
- Thermal expansion of structure-H clathrate hydrates. Tse, J.S., [1990, p.25-32, eng] **44-2772**
- Dielectric study on pure and KOH-doped tetrahydrofuran clathrate hydrates. Yamamuro, O., et al., [1990, p.33-44, eng] **44-2773**
- Heat capacity and glass transition of ethylene oxide clathrate hydrate. Yamamuro, O., et al., [1990, p.45-58, eng] **44-2774**
- Low temperature characteristics of engineered asphalts. Anderson, K.O., et al., [1988, p.292-310, eng] **44-2843**
- Low temperature performance characteristics of elastomers. Thoman, R.A., Jr., [1989, 8p., eng] **44-2853**
- Investigation into the frost susceptibility of sandy soils. Wolfe, S.A., [1986, 52p., eng] **44-2949**
- Low temperature effects on tribotechnical properties of coated surfaces. Gamulia, G.D., et al., [1989, p.60-65, eng] **44-3009**
- Nuclear magnetic resonance study of lattice dynamics in Dianian's compound clathrate. Bernhard, T., et al., [1990, p.2178-2186, eng] **44-3027**
- Thermal conductivity, heat capacity and diffusivity of rubbers from 60 to 300 K. Bhowmick, T., et al., [1990, p.116-121, eng] **44-3103**
- Test apparatus for measurement of heat capacity of cryogenic materials from 77 to 300 K. Pattanayak, S., et al., [1990, p.122-126, eng] **44-3104**
- Fatigue strength of concrete beams at low temperatures. Ohlsson, U., et al., [1990, p.195-203, eng] **44-3105**
- Evolution of fracture behaviour of saturated concrete in the low temperature range. Maturana, P., et al., [1990, p.827-834, eng] **44-3106**
- Behavior of polymer-modified bitumens at low temperatures. Kopsch, H., [1990, p.10-13, ger] **44-3304**
- Low temperature effect on flexural behavior of a cement composite. Currie, B., et al., [1989, p.149-152, eng] **44-3413**
- Deformation of steel at low temperatures. Kovalev, B.I., et al., [1989, p.56-59, eng] **44-3880**
- Low-temperature test object temperature variations. Ostapenko, L.S., [1990, p.649-654, eng] **44-3899**
- Low temperature effect on the damping properties of polymer glue. Yakovlev, A.P., et al., [1990, p.681-684, eng] **44-3900**
- Metallurgical approach to brittle-to-ductile-transition temperature. Huang, Z., [1990, p.185-194, eng] **44-3954**
- Fracturing in austenitic steel and nickel alloy at low temperatures. Aleksenko, E.N., et al., [1990, p.16-21, rus] **44-4341**
- Effect of deformation on steel sensitivity to stresses. Antropov, N.P., et al., [1990, p.21-25, rus] **44-4342**
- Test methods for crack-resistance of structural steels under dynamic load. Basko, E.M., et al., [1990, p.28-32, rus] **44-4344**
- Effect of heat treatment, chemical composition and anticorrosive coatings on the threshold of cold brittleness of structural steels. Belkin, L.M., et al., [1990, p.33-38, rus] **44-4345**
- Resistance of welded joints to crack propagation at low temperatures. Bondarovich, L.A., et al., [1990, p.38-43, rus] **44-4346**
- Diagrams of structural strength of steels with respect to cold brittleness. Vikulin, A.V., et al., [1990, p.51-56, rus] **44-4349**
- Role of alloying in changing properties of steels at low temperatures. Volosevich, P.I.U., et al., [1990, p.56-61, rus] **44-4350**
- Specific energy for the destruction of 10Kh2GM steels at low temperatures. Guliaev, V.P., et al., [1990, p.78-81, rus] **44-4354**
- Effects of temperature and magnetic field on structures. Dzenzerskii, V.A., et al., [1990, p.81-86, rus] **44-4355**
- Engineering of thermoplastics at cryogenic temperatures. Drozdov, V.V., [1990, p.91-95, rus] **44-4357**
- Defect resistance of steels at low temperatures. Zlenko, G.P., et al., [1990, p.106-110, rus] **44-4360**
- Effect of low temperature on fracture resistance of steels. Kashtalian, I.U.A., et al., [1990, p.110-113, rus] **44-4361**
- Ultimate loads on fractured parts at low temperatures. Kostenko, N.A., et al., [1990, p.114-119, rus] **44-4362**
- Resistance of welded joints to viscous and brittle failure. Leushin, I.G., et al., [1990, p.135-140, rus] **44-4367**
- Crack resistance of pipe welds. Mindlin, V.G., et al., [1990, p.146-150, rus] **44-4369**
- Effect of stresses on technological strength of steels. Mikhailov, V.E., et al., [1990, p.150-153, rus] **44-4370**
- Effect of low temperature and hydrogen on destruction of steel joints. Mikhailov, V.E., et al., [1990, p.153-157, rus] **44-4371**
- Steel strengthening by electric current at cryogenic temperatures. Novogrudskii, L.S., [1990, p.167-172, rus] **44-4374**
- Low-temperature strengthening of materials. Ostash, O.P., et al., [1990, p.176-181, rus] **44-4376**
- Features of alloy metal welds at low temperatures. Polushkin, I.U.A., et al., [1990, p.186-191, rus] **44-4378**
- Effects of roughness and thinning of weld rims on strength of structures. Roslanov, V.A., [1990, p.197-202, rus] **44-4380**
- Effects of cryogenic media on fatigue resistance in steels. Silin, P.N., et al., [1990, p.215-219, rus] **44-4385**
- Elasticity tests under conditions of offset of the applied loads. Skripnik, N.V., [1990, p.219-224, rus] **44-4386**
- Effect of low temperatures on deformation of construction materials. Skripnik, I.U.D., et al., [1990, p.224-229, rus] **44-4387**
- Determination of low-temperature strengthening of aluminum alloys. Stepanov, G.A., et al., [1990, p.229-233, rus] **44-4388**
- Cyclic durability of Nb-Cu in the temperature range of 293-4.2 K. Iakovenko, L.F., [1990, p.261-264, rus] **44-4395**
- Elasto-plastic fracture characterization of paving materials at low temperatures. Mahboub, K., [1990, p.210-218, eng] **44-4471**
- Lubricants**
- Switch to multi-vis. [1988, p.70-71, eng] **44-753**
- Lubes boost economy. [1988, p.72-73, eng] **44-754**
- Laboratory engine test study of motor oil flow properties in winter service. Johnson, R.S., [1984, p.6.81-6.93, eng] **44-1188**
- Low temperature pumpability of engine oils. Stambaugh, R.L., [1984, p.6.94-6.101, eng] **44-1189**
- Wax and low temperature engine oil pumpability. Rossi, A., [1985, p.768-776, eng] **44-1190**
- Compositional effects on the low temperature pumpability of engine oils. Alpine, G.A.M., et al., [1987, p.7.79-7.87, eng] **44-1193**
- Factors affecting the low temperature pumpability of used engine oils. May, C.J., et al., [1987, p.7.298-7.306, eng] **44-1194**
- Differential-scanning calorimetry study of low-temperature properties of oils and gases. Skrabina, T.G., et al., [1989, p.179-183, eng] **44-2276**
- Low temperature pumpability studies in a heavy duty diesel engine. Pt 2. Machleder, W.H., et al., [1989, 16p., eng] **44-2851**
- Requirements of diesel engine oil as it relates to low temperature operation. Roth, R.T.G., [1989, 12p., eng] **44-2854**
- Cold starting capabilities of lubricants in diesel engines. Marzson, M.A., et al., [1989, 11p., eng] **44-2855**
- Army arctic engine oil performance in high ambient temperatures. Lestz, S.J., et al., [1989, 14p., eng] **44-2856**
- Low-temperature pumpability of U.S. Army diesel engine oils. Frame, E.A., et al., [1989, 18p., eng] **44-2857**
- Low temperature effects on tribotechnical properties of coated surfaces. Gamulia, G.D., et al., [1989, p.60-65, eng] **44-3009**
- Effect of polyester thickeners on low-temperature properties of phosphate fluids. Barabanova, G.V., et al., [1990, p.352-354, eng] **44-3203**

Lubricants (cont.)

- Marker constructs indoor bulk storage site for lubricants. (1989, p.27-28, eng) **44-3250**

Luminescence

- See *also*: Thermoluminescence

Machinery

- Operating reclamation machinery in cold conditions. Handbook. Surikov, V.V., (1989, 239p., rus) **44-51**
Prospects for winter maintenance machines and equipment. Tambo, T., (1988, p.20-24, fin) **44-751**
Designing for extreme cold. Raines, A., (1947, p.103-106, eng) **44-1186**
Research on machines and structures suitable for cold regions. Larionov, V.P., (1986, p.139-150, eng) **44-1730**

- Advances in winter maintenance techniques. Farquhar, B., (1984, p.1631, eng) **44-2062**

Magnetic properties

- Middle Wisconsinan climate fluctuations recorded in central Alaskan loess. Begét, J., (1990, p.3-13, eng) **44-3530**

Magnetic resonance

- Electromagnetic noise collection in the Arctic. Scarzello, J.F., et al., (1989, p.260-265, eng) **44-3152**
See *also*: Nuclear magnetic resonance

Magnetic surveys

- Greenland ice cap aeromagnetic survey, 1987. Thorning, L., et al., (1988, p.70-72, eng) **44-486**
Effects of temperature and magnetic field on structures. Dzenzerskii, V.A., et al., (1990, p.81-86, rus) **44-4355**

- Metals at cryogenic temperatures under magnetic exposure. Strizhalo, V.A., et al., (1990, p.233-237, rus) **44-4389**
Using magnetic and gravimetric methods in studying underground ice. Matveev, V.S., et al., (1990, p.85-90, rus) **44-4543**

Magnetism

- See *also*: Geomagnetism

Maintenance

- Bibliography of patents for sleds and sledding (1970-1988). (1988, 41p., eng) **44-795**
Arctic offshore pipeline installation and operation. Masterson, D.M., et al., (1989, p.405-413, eng) **44-2745**

- Alaska starts repairing miles of corroded pipes. Bloomberg, R., (1990, p.35-36, eng) **44-3048**
See *also*: Road maintenance; Subgrade maintenance; Winter maintenance

Manuals

- Construction in water: manual. Godes, E.G., et al., (1989, 527p. (Pertinent p.97-110, 439-448), rus) **44-3360**

Manufacturing

- Snowfighters given new options in deicers. (1989, p.53, eng) **44-769**
Refinery/additive technologies and low temperature pumpability. Rossi, A., (1988, p.3.970-3.980, eng) **44-4246**

Mapping

- Using large-scale mapping to study arctic tundra vegetation. Kholod, S.S., (1989, p.61-71, rus) **44-37**
Transient processes sounding method for searching and mapping cryopegs. Nim, I.U.A., et al., (1989, p.112-125, rus) **44-157**

- Compiling a map of suprapermafrost ground water in Yakutsk ASSR. Tolstikhin, O.N., et al., (1989, p.125-132, rus) **44-158**
Mapping suprapermafrost ground water in loose deposits of plains. Ponomareva, O.E., (1989, p.132-139, rus) **44-159**

- Use of Kosmos-1500 satellite radar images to study the distribution and the dynamics of sea ice. Bushuev, A.V., et al., (1989, p.382-390, eng) **44-183**
Radar maps of the Arctic and Antarctic using data from the Kosmos-1500 satellite and preliminary results of their analysis. Burtsev, A.I., et al., (1989, p.434-451, eng) **44-185**

- Monitoring of snow cover and surface runoff in Greenland by use of NOAA-AVHRR satellite data. Søgaard, H., et al., (1988, p.179-188, eng) **44-247**
On the value of long-term satellite passive microwave data sets for sea ice/climate studies. Parkinson, C.L., (1989, p.9-20, eng) **44-293**

- Snow-avalanche maps for use by the Norwegian Army. Lied, K., et al., (1989, p.170-174, eng) **44-568**
Avalanche risk on walking tracks in Fiordland, New Zealand. Owens, I.F., et al., (1989, p.231-236, eng) **44-580**

- Mapping seasonal soil freezing and thawing within the USSR. Tumel', N.V., et al., (1989, p.30-37, rus) **44-619**
Landsat image of the Karakoram Mountains. Mi, D.S., et al., (1988, p.21-22, chin) **44-631**
Yearbook, fiscal year 1988 (1989, 134p., eng) **44-657**

- Mapping freeze/thaw boundaries with SMR data. Zuerdorfer, B.W., et al., (1989, 28p., eng) **44-713**
Scales for the Valday glaciation of the Barents Sea shelf. Dunayev, N.N., et al., (1989, p.1437-1441, rus) **44-979**

- Experimental mapping of the flow field behind a glaze ice shape. Spring, S.A., (1988, 84p., eng) **44-991**

- Estimating snow cover parameters on mountain slopes. Golubev, V.N., et al., (1989, p.111-122, rus) **44-1579**

- Avalanche regime of mountain pass roads and mapping avalanche hazards. Abdushelishvili, K.L., et al., (1989, p.210-220, rus) **44-1591**

- Topography and surface features of Larsen Ice Shelf. Ridley, J.K., et al., (1989, p.299-310, eng) **44-1890**

- Permafrost mapping at Schefferville, Quebec. Granberg, H.B., (1989, p.249-269, eng) **44-2131**
Composing hydrological maps using space photography data. Chaimaev, L.V., et al., (1989, p.38-42, rus) **44-2522**

- Methods of producing a map of the seasonal freezing and thawing of soils. Vostokova, A.V., et al., (1989, p.50-55, rus) **44-2523**

- Provision of hydrometeorological information to the rescue expedition on board the icebreaker *Vladivostok*. Krutskikh, B.A., et al., (1989, p.40-51, rus) **44-2821**

- Alaska interim land cover mapping program—final report. Fitzpatrick-Lins, K., et al., (1989, 10p., eng) **44-2951**

- Engineering geological mapping. Gruzdev, A.V., ed., (1989, 118p., rus) **44-3706**
Geological and tectonic cartography of the Arctic. Pogrebetskii, I.U.E., et al., (1990, p.337-342, eng) **44-4103**

- Cartographic modeling of snow avalanche path location within Glacier National Park, Montana. Walsh, S.J., et al., (1990, p.615-621, eng) **44-4472**

- See *also*: Infrared mapping; Sensor mapping; Soil mapping; Stereomapping

Maps

- Calculation of normal runoff in glacier-covered areas. Pettersson, L.E., (1988, p.95-103, eng) **44-239**
Changes in the glacier cover of Severnaya Zemlya in the twentieth century. Govorukha, L.S., et al., (1987, p.300-305, eng) **44-2055**

- Geomorphological map of the Northern Foothills in Terra Nova Bay. Baroni, C., (1987, p.195-211, eng) **44-3246**

- Large scale mapping of the Borg Massif. Brunk, K., (1989, 102p., ger) **44-3328**
See *also*: Charts; Geological maps; Meteorological charts; Topographic maps

Marginal ice zone

- See *also*: Ice edge

Marine atmospheres

- Atmospheric boundary layer in Greenland Sea marginal ice zone. Dinkler, K.L., (1988, 65p., eng) **44-843**

Marine biology

- Autumn Conference of the Japanese Oceanographic Society, Sendai, Japan, Oct. 2-6, 1985. Summaries of the lectures. (1985, 327p., jpn) **44-56**

- Heterotrophic bacteria under fast ice at Showa Station. Satoh, H., et al., (1985, p.200, jpn) **44-61**
Heterotrophic bacteria under fast ice near Showa Station. Satoh, H., et al., (1989, p.329-333, eng) **44-463**

- Natural and artificial antifreeze proteins. Arai, S., et al., (1986, p.137-144, jpn) **44-1344**
Arctic data compilation and appraisal. Vol.9. Beaufort Sea. Woods, S.M., et al., (1987, 394p., eng) **44-1459**

- Summary of WINCRUISE II to the Antarctic Peninsula during June and July 1987. Quetin, L.B., et al., (1988, p.149-151, eng) **44-1907**
Proceedings. (1989, 637p., eng) **44-3427**

- Role of ice margins and polynyas in high latitude ecosystems. Niebauer, H.J., et al., (1989, p.121-144, eng) **44-3428**

- Ecological features of the Barents Sea. Loeng, H., (1989, p.327-365, eng) **44-3429**
Northern Svalbard waters. Strömberg, J.O., (1989, p.402-426, eng) **44-3430**

- Biological effect of oceanographic variations in the Iceland Sea. Stefánsson, U., et al., (1989, p.427-455, eng) **44-3431**

- Marine biological assessment in the Arctic using remote sensing. Gower, J.F.R., et al., (1989, p.490-509, eng) **44-3432**

- Microbial ecosystems of Antarctica. Vincent, W.F., (1988, 304p., eng) **44-3711**
Sea ice: a habitat for the foraminifer *Neogloboquadrina pachyderma*? Dieckmann, G., et al., (1990, p.86-92, eng) **44-3824**

- Microorganisms concentrated by frazil ice. Garrison, D.L., et al., (1990, p.92-96, eng) **44-3825**
Macrofauna of Canadian arctic fjords. Dale, J.E., et al., (1989, p.331-358, eng) **44-3941**

Marine deposits

- Ice beds in ice-marine sediments as a product of cryogenic diagenesis. Danilov, I.D., (1989, p.1201-1203, rus) **44-163**

- Role of gas hydrates in the cryolithogenesis of marine deposits. Romanovskii, N.N., et al., (1988, p.1-12, eng) **44-593**

- Proximal glacial-marine tills deposited from a stagnant ice-sheet. Drozdowski, E., (1988, p.119-126, eng) **44-1855**

- Glacial-marine sedimentation. Anderson, J.B., et al., (1989, 127p., eng) **44-2939**
Sedimentation in the Barents Sea. Lavrushin, I.U.A., et al., (1990, p.82-90, rus) **44-3065**

- Marine controls on modern sedimentation on the antarctic continental shelf. Jacobs, S.S., (1989, p.121-153, eng) **44-3934**

- Biogenic sedimentation in McMurdo Sound, Antarctica. Dunbar, R.B., et al., (1989, p.155-179, eng) **44-3935**

- Seismic reflection studies of sediments in the Ross Sea. Karl, H.A., (1989, p.205-223, eng) **44-3936**

- Glaciomarine sedimentation in the Barents Sea. Elverhøi, A., et al., (1989, p.225-250, eng) **44-3937**
Glacigenic sediments in the Barents Sea. Vorren, T.O., et al., (1989, p.251-272, eng) **44-3938**

- Glacial sedimentation along the eastern Canadian margin. Josephans, H.W., et al., (1989, p.273-300, eng) **44-3939**

- Sediment deposition in glacier-influenced fjords. Syvitski, J.P.M., (1989, p.301-329, eng) **44-3940**
Macrofauna of Canadian arctic fjords. Dale, J.E., et al., (1989, p.331-358, eng) **44-3941**

- Glaciomarine sediments of the Alaska shelf and fjords. Powell, R.D., et al., (1989, p.359-390, eng) **44-3942**
Glaciomarine sediments in the Gulf of Alaska. Carlson, P.R., (1989, p.391-416, eng) **44-3943**

- Pleistocene glaciomarine deposits on Baldwin Peninsula, Alaska. Huston, M.M., et al., (1990, p.111-114, eng) **44-4173**

- See *also*: Sediments

Marine geology

- Morphodynamics of the Wadden Sea. Ehlers, J., (1988, 397p., eng) **44-371**
Evaluating seismic data recorded from an ice island in the Arctic Ocean. Cox, T.P., (1987, 219p., eng) **44-1874**

- Quaternary paleoecology and geology of the seas of northern Europe. Matishov, G.G., et al., (1989, 114p., rus) **44-1910**

- Late Quaternary development of the Champlain Sea basin. Gadd, N.R., ed., (1988, 312p., eng) **44-4449**
History of the northwestern arm of the Champlain Sea. Barnett, P.J., (1988, p.25-36, eng) **44-4452**

- Champlain Sea subwash fan at St. Lazare, Quebec. Burbidge, G.H., et al., (1988, p.47-61, eng) **44-4454**

Marine meteorology

- Oceanographic and climatological atlas of Bristol Bay. Final report. Wise, J.L., et al., (1987, 192p., eng) **44-674**

- Atlas of oceanographic information for Norton Sound, Alaska. Final report. Ostrom, J.E., et al., (1987, 143p., eng) **44-679**

- Marine meteorological and oceanographic products of the OPC (Revision I). Feit, D.M., (1989, 89p., eng) **44-790**

- Atmospheric radon and dust over Greenland Sea. Bressan, D.J., et al., (1973, p.74-77, eng) **44-952**
Ice edge studies aboard *Polar Sea*, Vol.1: Environmental data. St. John, J.W., et al., (1986, 487p., eng) **44-1075**

- Mesoscale meteorology of the Norton Sound region. Kozo, T.L., (1988, p.163-181, eng) **44-1137**
Structure of a convergent cloud band over the Japan Sea in winter. Nagata, M., (1987, p.871-883, eng) **44-1303**

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Lidar detection of leads in arctic sea ice. Schnell, R.C., et al., (1990, p.119-123, eng) **44-3833**

- Remote sensing of ocean surface winds with the special sensor microwave/imager (SSM/I). Goodberlet, M.A., et al., (1990, p.209-213, eng) **44-3852**
Meteorology of polar oceans. Brown, R.A., (1990, p.1-46, eng) **44-3975**

Marine transportation

- Arctic marine transport and ancillary technologies. Frankel, E.G., (1988, p.100-129, eng) **44-1121**
Canadian arctic marine transportation. Stuart, W.J.H., et al., (1988, p.130-152, eng) **44-1122**

- Simulating ice conditions and ship transits through ice. Kotras, T.V., (1987, 57p., eng) **44-1269**
Transportation system in Siberia. Egan, D.M., (1987, 77p., eng) **44-1278**

- Transport organization during the extended navigation period. Atlas, B.A., et al., (1989, 125p., rus) **44-1752**
Work scheduling on Canadian Coast Guard ships: physiological and psychological impacts. Boulard, R., et al., (1989, 17p., eng) **44-2835**

- Arctic marine transportation program, 1979 to 1986. Technical summary. Zahn, P.B., et al., (1988, Var. p., eng) **44-3407**

- Sea transport in ice-covered waters. Varsta, P., (1988, 22p., eng) **44-3409**
Propulsion power of an ice going tanker ship. Takekuma, K., et al., (1984, p.B-1-B-12, eng) **44-3451**

- Ice conditions along Alaskan marine transportation routes. Voelker, R.P., et al., (1990, p.R-1-R-8, eng) **44-3480**
Overview of the Canadian Arctic Shipping Pollution Prevention Regulations. McCallum, J.S., (1990, p.U-1-U-8, eng) **44-3482**

- Revised navigation control system for CASPPR based on ice regimes. Lapp, D.J., et al., (1990, p.V-1-V-15, eng) **44-3483**

- Arctic operations in the western part of the Soviet Arctic. Beletskii, V.V., (1989, p.1515-1524, eng) **44-4447**
Canadian Coast Guard icebreakers keeping Canada moving through winter ice. (1989, p.16-18, eng) **44-4467**

Markers

- Movement of debris on a high Andean talus. Pérez, F.L., 1988, p.77-99, eng 44-692

Marking

See *also*: Isotopic labeling

Mars (planet)

- Isidis basin: site of ancient volatile-rich debris layer. Grizzaffi, P., et al, 1989, p.358-381, eng 44-378
Environmental change of planet Mars demonstrated by landforms. Tricart, J.L.F., 1988, p.385-407, eng 44-695

- Planetary geosciences, 1988. Zuber, M.T., et al, 1989, 113p., eng 44-791

- Middle Martian atmosphere. Jaquin, R.F., 1989, 135p., eng 44-962

- Water on Mars. Carr, M.H., 1987, p.374-375, eng 44-1414

- Some models related to fossil ice lenses on Mars. Costard, F., 1987, p.243-251, frej 44-1452

- Inventory of water on Mars. Carr, M.H., 1988, p.71-80, eng 44-1678

- Structural inhomogeneities of the Martian cryolithosphere. Kuz'min, R.O., et al, 1989, p.121-133, eng 44-1679

- Early environment and its evolution on Mars: implications for life. McKay, C.P., et al, 1989, p.189-214, eng 44-1768

- Evidence for residual CO₂ frost on the Martian south polar cap. Paige, D.A., et al, 1990, p.1319-1335, eng 44-2284

- Seasonal recession of Mars' south polar cap in 1986. James, P.B., et al, 1990, p.1337-1341, eng 44-2285

- Color and albedo of the south polar layered deposits on Mars. Herkenhoff, K.E., et al, 1990, p.1343-1358, eng 44-2286

- Year-to-year instability of the Mars south polar cap. Jakosky, B.M., et al, 1990, p.1359-1365, eng 44-2287

- Martian polar cap: radiative effects of ozone, clouds, and airborne dust. Lindner, B.E., 1990, p.1367-1379, eng 44-2288

- Transport of dust to high northern latitudes in a Martian polar warming. Barnes, J.R., 1990, p.1381-1400, eng 44-2289

- Sublimation and transport of water from the north residual polar cap on Mars. Haberle, R.M., et al, 1990, p.1423-1437, eng 44-2290

- Role of water ice clouds in the Martian hydrologic cycle. James, P.B., 1990, p.1439-1445, eng 44-2291

- Simulations of the general circulation of the Martian atmosphere I. Polar processes. Pollack, J.B., et al, 1990, p.1447-1473, eng 44-2292

- Mars atmospheric D/H: consistent with polar volatile theory? Jakosky, B.M., 1990, p.1475-1480, eng 44-2293

- H₂O grain size and the amount of dust in Mars' residual north polar cap. Kieffer, H.H., 1990, p.1481-1493, eng 44-2294

- Winter frost at Viking Lander 2 site. Svitek, T., et al, 1990, p.1495-1510, eng 44-2295

- Martian dust particles as condensation nuclei: mineralogical factors. Gooding, J.L., 1986, p.56-74, eng 44-2396

- Composition of condensate observed at Viking Lander 2 site on Mars. Hart, H.M., et al, 1986, p.134-142, eng 44-2397

- Rocks and soil of the martian surface. Sidorov, I.U.I., et al, 1989, 222p., rus 44-2797

- General overview of the surface of Mars pt.3. Jöns, H.P., 1990, p.131-164, ger 44-3411

- See *also*: Swamps

- Mass balance**

- Fram Strait ice flux calculations and associated arctic ice conditions. Englebreton, R.E., et al, 1989, p.61-67, eng 44-297

- Process-based model of snow drifting. Pomeroy, J.W., 1989, p.237-240, eng 44-581

- Net mass balance of Crary Ice Rise. Bindshadler, R.A., et al, 1989, p.370-377, eng 44-1898

- Velocity, heat budget and mass balance, Anvers Island ice cap. Casassa, G., 1989, p.341-352, eng 44-2765

- Effect of frozen soil on erosion—a model approach. Botterweg, P.F., 1990, p.135-144, eng 44-2976

- Ice sheet mass balance variations. Giovinetto, M.B., et al, 1990, p.3517-3531, eng 44-3069

- Expected sea-level rise from climatic warming in the Antarctic. Budd, W.F., 1988, p.74-82, eng 44-3356

- Snow cover energy and mass balance model in a balsam fir forest. Barry, R., et al, 1990, p.1079-1092, eng 44-4130

- Arctic Ocean multi-year ice balance, 1979-82. Rothrock, D.A., et al, 1990, p.252-255, eng 44-4204

- See *also*: Glacier mass balance

- Mass flow**

- Multiphase flows in porous media. Morel-Seytoux, H.J., 1987, p.103-174, eng 44-307

- Flow of granular materials. Savage, S.B., 1989, p.241-266, eng 44-1090

- Friction loss through a uniform snow layer. Yen, Y.C., 1990, p.83-90, eng 44-3542

Mass transfer

- Modeling the transport of chromium (VI) in soil columns. Selim, H.M., et al, 1989, p.996-1004, eng 44-67

- Snow cover distribution and glacier mass transfer. Krenke, A.N., 1989, p.27-34, rus 44-332

- Mass transfer of Tien Shan glaciers. Mikhaleiko, V.N., 1989, p.86-92, rus 44-341

- Mass and heat transfer during frost growth. Sami, S.M., et al, 1989, p.158-165, eng 44-441

- Environmental change of planet Mars demonstrated by landforms. Tricart, J.L.F., 1988, p.385-407, eng 44-695

- General report on frost action in soil. Slunga, E., et al, 1989, p.415-417, eng 44-917

- Stress-strain behavior and heat-mass transfer of frozen soil. Razbegin, V.N., 1989, p.419-424, eng 44-918

- Mathematical model of heat and mass transfer in stratified snow. Grigorian, S.S., et al, 1989, p.69-72, rus 44-1574

- Effect of freezing on mass and heat transfer in porous media. Eldin, N.N., et al, 1990, p.77-185, eng 44-2981

- Parametric analysis of self-freezing in an initially wet porous medium. Fey, Y.C., et al, 1988, p.147-155, eng 44-3930

- Mass transfer during ice particle collisions in planetary rings. McDonald, J.S.B., et al, 1989, p.167-179, eng 44-3969

- Mass transfer coefficient for ice sublimation under forced convection. Sakly, M., et al, 1989, p.633-644, frej 44-4417

- See *also*: Permafrost mass transfer

- Materials**

- Graphite-epoxy composites subjected to low temperatures. Dutta, P.K., et al, 1989, p.429-435, eng 44-1206

- New welding procedure for icebreaker hulls. Toyosada, M., et al, 1986, p.199-210, eng 44-2063

- Effects of sub-freezing temperatures on graphite/epoxy composite materials. Tsotsis, T.K., 1989, p.438-439, eng 44-2591

- High-pressure freezing for the preservation of biological structure: theory and practice. Dahl, R., et al, 1989, p.165-174, eng 44-2789

- Surface influence on adhesion of ice. Igoshin, V.A., et al, 1989, p.111-114, eng 44-3010

- Multipurpose sled of the mountain rescue patrol. Emin, R., 1990, p.25-26, frej 44-3415

- Structural dynamics of electro-impulse de-icing on the Lear Fan Kevlar composite leading edge. Paramasivam, T., et al, 1985, p.4768-4776, eng 44-4241

- Kilpisjärvi project: case study of cold-regions research in Finland. McFadden, T., 1990, p.69-84, eng 44-4488

- Geosynthetic reinforcement of paved road embankments on polygonal ground. Kinney, T.C., et al, 1990, p.102-112, eng 44-4490

- Mathematical analysis**

- See *also*: Analysis (mathematics)

- Mathematical models**

- Exothermic model of percolation zone in a glacier. Cai, B.L., et al, 1989, p.312-314, eng 44-289

- Statistical forecast model for Libby Basin, Montana. Wortman, R.T., 1989, p.100-107, eng 44-509

- Low-relief topographic enhancement in a Landsat snow-cover scene. Eyton, J.R., 1989, p.105-118, eng 44-524

- Numerical simulation of microphysical processes in cumulonimbus Pt.1. Hu, Z.J., et al, 1988, p.471-489, eng 44-527

- Two-dimensional numerical hailcloud model. Xu, H.B., et al, 1989, p.200-211, eng 44-529

- Secondary frost heave in freezing soils. Fowler, A.C., 1989, p.991-100*, eng 44-531

- Comparison of three models of avalanche dynamics. Gubler, H., 1989, p.82-89, eng 44-553

- Studies of granular avalanche flow. Hutter, K., et al, 1989, p.109-116, eng 44-557

- Mathematical model for instability in snow gliding motion. Nohguchi, Y., 1989, p.211-214, eng 44-576

- Microwave scattering models and basic experiments. Fung, A.K., 1989, 32p., eng 44-785

- Stress-strain behavior and heat-mass transfer of frozen soil. Razbegin, V.N., 1989, p.419-424, eng 44-918

- Mathematical model of frost heave in granular materials. Piper, D., et al, 1989, p.569-570, eng 44-939

- Mathematical model for river ice processes. Lal, A.M.W., 1989, 243p., eng 44-970

- Sea spray icing on marine structures. Vefsnmo, S., et al, 1988, p.571-579, eng 44-1174

- Flow simulation in the Weddell Sea. Fettweis, M., et al, 1989, 69p., eng 44-1351

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- Estimate of permafrost sensitivity to change in global thermal regime. Anisimov, O.A., 1989, p.65-69, eng 44-1361

- Estimation of melt rate in seasonally snow-covered mountainous areas. Mousavi, M., et al, 1989, p.249-263, eng 44-1682

- Numerical simulation of glacial periods. Verbitakii, M.I.A., et al, 1989, p.1336-1341, rus 44-1757

- Practical instructions for calculating stationary soil temperature fields. Feldman, G.M., et al, 1988, 51p., rus 44-1938

- Model of sea ice cover in the arctic basin. Makshas, A.P., et al, 1988, p.96-116, rus 44-1939

- Remote sensing of snow and evapotranspiration. Schmugge, T., ed, 1985, 167p., eng 44-1999

- Models of surface wave transformation in an ice-covered sea. Tkachenko, V.A., et al, 1988, p.41-46, rus 44-2281

- Models of ocean processes. Vinogradov, M.E., ed, 1989, 365p., rus 44-2282

- Sensitivity and uncertainty analysis of a short-term sea ice motion model. Thomson, N.R., et al, 1990, p.1713-1739, eng 44-2359

- Heat and moisture transfer in the seasonal thawing of frozen soils. Permiakov, P.P., et al, 1989, p.828-832, eng 44-2381

- Mathematical model of the ocean boundary layer under drifting melting ice. Svensson, U., et al, 1990, p.161-171, eng 44-2791

- Modelling water temperature beneath river ice covers. Marsh, P., 1990, p.36-44, eng 44-3000

- Parametric study of icebreaking bow forms. Carter, D., 1990, 87p., eng 44-3198

- Algorithm for extraction of ice-thickness data from short pulse radar signals. Riek, L., et al, 1990, p.137-145, eng 44-3394

- Glacier's bottom conditions, rheology, and stationary ice cover flow. Larina, T.B., 1989, p.73-79, rus 44-3496

- Resolution of a two dimensional Stefan problem. Cames-Pintaux, A.M., et al, 1990, p.143-150, frej 44-3656

- Mathematical model of temperature changes in concrete pavements. Adkins, D.F., et al, 1990, p.349-358, eng 44-3869

- Mathematical modelling of deformation mechanisms in ice. Santaja, K., 1990, 215p. + appends., eng 44-3958

- Unfrozen water content and hydraulic conductivity of frozen soil. Black, P.B., 1990, 7p., eng 44-3987

- Numerical modeling of passive microwave O₂ observations over precipitation. Gasiewski, A.J., et al, 1990, p.217-235, eng 44-4128

- Modeling of meltwater infiltration in subfreezing snow. Ilangasekare, T.H., et al, 1990, p.1001-1012, eng 44-4129

- Snow cover energy and mass balance model in a balsam fir forest. Barry, R., et al, 1990, p.1079-1092, eng 44-4130

- Stable isotope precipitation model. Fisher, D.A., 1990, p.65-71, eng 44-4164

- Model for interpreting the field evidence of past ice sheets. Nye, J.F., 1990, p.208-210, eng 44-4195

- Shortwave radiation and open water in models of sea ice decay. Perovich, D.K., et al, 1990, p.242-246, eng 44-4202

- Asynchronous coupling of ice-sheet and atmospheric forcing models. Pollard, D., et al, 1990, p.247-251, eng 44-4283

- Numerical modelling of frost and thaw penetration. Sheng, D.C., 1990, 103p., eng 44-4423

- See *also*: Computerized simulation

- Meadow soils**

- Hydrothermal problems of frozen soils. Savvinov, D.D., ed, 1988, 126p., rus 44-1958

- Moisture regime of cultivated frozen flood-plain meadow soils. Baishiev, S.I., 1988, p.30-37, rus 44-1961

- Biological activity of frozen meadow-chenozem soils in the Amga River valley. Volotovaika, T.N., et al, 1988, p.37-40, rus 44-1962

- Thermal conductivity coefficient of frozen chernozem-meadow soils. Mandarov, A.A., et al, 1988, p.76-86, rus 44-1965

- Measurement**

- Radar backscattering from artificially grown sea ice. Bredow, J., et al, 1989, p.259-264, eng 44-8

- Snow-radar: an efficient tool for areal snow pack assessments. Killingtveit, A., et al, 1988, p.145-157, eng 44-244

- Uncertainties in streamflow measurement under winter ice conditions. A case study: the Red River at Emerson, Manitoba, Canada. Pelletier, P.M., 1988, p.269-292, eng 44-255

- Thermal runoff to sea of the Arctic Ocean. Elshin, I.U.A., 1989, p.448-452, eng 44-286

- Scattering of a spheroidal ice/water particle. Hume, A.L., et al, 1989, p.351-357, eng 44-367

- Methane flux time series for tundra environments. Whalen, S.C., et al, 1988, p.399-409, eng 44-374

- Determination of regional sources of aerosol black carbon in the Arctic. Kahl, J.D., et al, 1989, p.327-330, eng 44-388

- Implications of ice surface features for SAR backscatter signatures. Drinkwater, M.R., 1989, p.501-513, eng 44-404

- Measurement of the path-averaged turbulent surface heat flux. Andreas, E.L., 1988, p.219-220, eng 44-421

- Automated collection of water-quality and discharge data on streams. Sturges, D.L., et al, 1989, p.122-125, eng 44-512

- Snowpack changes at a low elevation site. Kattelmann, R., et al, 1989, p.141-144, eng 44-517

Measurement (cont.)

- By the numbers on snow or ice. Spence, C., [1988, p.18-20, eng] **44-758**
- Multiple reflections across a linear discontinuity in surface albedo. Barker, H.W., et al, [1989, p.203-214, eng] **44-759**
- Electromagnetic induction remote sensing of sea ice thickness. Echert, D.C., [1986, 47p., eng] **44-787**
- Estimating snow moisture reserve and soil humidity from cosmic rays. Avdiushin, S.I., et al, [1988, p.163-165, eng] **44-1105**
- Full-scale measurement of sea ice forces on a jacket structure. Shi, Q.Z., et al, [1988, p.337-344, eng] **44-1151**
- Friction panel measurements in icebreaking ship tests. Liukkonen, S., [1989, p.251-253, eng] **44-1198**
- Lichen weathering as mass balance change indicator for an Alpine glacier. Mahaney, W.C., [1987, p.411-418, eng] **44-1453**
- Measurement of snowflake size and falling velocity by image processing. Muramoto, K., et al, [1989, p.48-54, eng] **44-1801**
- Physical properties of carbonate rocks. Bondarenko, A.T., et al, [1989, p.121-128, rus] **44-2053**
- Variations of Italian glaciers, 1985-1986. Zanoni, G., comp. [1987, p.229-276, ita] **44-2097**
- Estimates of antarctic precipitation. Bromwich, D.H., [1990, p.627-629, eng] **44-2104**
- Meteorology and haze structure during AGASP-II, Pt. 2. Bridgman, H.A., et al, [1989, p.49-70, eng] **44-2167**
- Aerial measurements of optical depth of arctic haze. Dutton, E.G., et al, [1989, p.71-79, eng] **44-2168**
- Anthropogenic aerosols and gases in the lower troposphere at Alert, Canada in April 1986. Barrie, L.A., et al, [1989, p.101-127, eng] **44-2170**
- Concentrations of summer arctic hazes over Greenland and the North American Arctic. Ishizaka, Y., et al, [1989, p.149-159, eng] **44-2172**
- Contributions of burning of carbonaceous materials to arctic haze over Greenland. Radke, L.F., et al, [1989, p.161-167, eng] **44-2173**
- Airborne and lidar measurements of tropospheric aerosol over Alert, Canada. Leaitch, W.R., et al, [1989, p.187-211, eng] **44-2175**
- On the transfer of stratospheric ozone into the troposphere near the North Pole. Oltmans, S.J., et al, [1989, p.245-253, eng] **44-2178**
- PAN over the Arctic: observations during AGASP-2 in April 1986. Bottenheim, J.W., et al, [1989, p.301-316, eng] **44-2182**
- Barrow surface aerosol: 1976-1986. Bodhaine, B.A., [1989, p.2357-2369, eng] **44-2251**
- Measurements of hazes in polar air masses. Radke, L.F., et al, [1989, p.2417-2430, eng] **44-2255**
- Boundary layer ozone depletion during AGASP-II. Mickle, R.E., et al, [1989, p.2443-2449, eng] **44-2257**
- Absence of eruptive particles in arctic aerosols. Sievering, H., et al, [1989, p.2495-2499, eng] **44-2262**
- Test of Newton's inverse-square law in the Greenland ice cap. Ander, M.E., et al, [1989, p.985-988, eng] **44-3083**
- Algorithm for extraction of ice-thickness data from short pulse radar signals. Rick, L., et al, [1990, p.137-145, eng] **44-3394**
- Sea ice thickness versus impulse radar time-of-flight data. Kovacs, A., et al, [1990, p.91-98, eng] **44-3543**
- Laboratory measurements of optical beams in young sea ice. Schoonmaker, J.S., et al, [1989, p.1606-1613, eng] **44-3625**
- Millimeter-wave backscatter characteristics of multilayered snow surfaces. Narayanan, R.M., et al, [1990, p.693-703, eng] **44-3695**
- Method for measuring snow depth using fine-resolution radars. Lei, G., et al, [1989, p.151-158, eng] **44-3897**
- Radar backscatter measurements over saline ice. Gogineni, S., et al, [1990, p.603-615, eng] **44-3901**
- Computerized methods to analyze variations in airborne snow water equivalence estimates. Carroll, S.S., et al, [1990, p.35-46, eng] **44-3983**
- Comparison of measurements of snowfall by radar using an S-band and an X-band transmitter. Giguere, A., [1989, p.2-98, eng] **44-4001**
- Darcy permeability of fine-grained compact snow. Sommerfeld, R., et al, [1989, p.121-128, eng] **44-4005**
- Snowpack water losses during melt in a deciduous forest. Buttle, J., et al, [1989, p.267-271, eng] **44-4025**
- Surface radiation budget components measured over arctic sea ice. Bauer, P., et al, [1989, p.295-297, eng] **44-4044**
- Comparison of melt energy computations and ablatometer measurements on melting ice and snow. Munro, D.S., [1990, p.151-162, eng] **44-4048**
- Determination of thermal conductivity in freezing moist soils. Jacobs, H.R., et al, [1990, p.355-361, eng] **44-4243**
- Internal wave activity in the arctic marginal ice zone. Eckert, E.G., et al, [1990, p.9569-9574, eng] **44-4333**
- Field frost heave measurement and prediction during periods of seasonal frost. Hayhoe, H.N., et al, [1990, p.193-197, eng] **44-4412**
- See also: Acoustic measurement; Electrical measurement; Flow measurement; Geothermometry; Height finding; Photogrammetry; Photometry; Radiometry; Sampling; Sounding; Spectroscopy; Temperature measurement; Underwater geothermal measurement; Velocity measurement; Well logging
- Measuring instruments**
- Uncertainties in streamflow measurement under winter ice conditions. A case study: the Red River at Emerson, Manitoba, Canada. Pelletier, P.M., [1988, p.269-292, eng] **44-255**
- Wet deposition and snowpack monitoring. Hess, B.C., et al, [1988, 134p., eng] **44-1085**
- Evaluation of the Amundsen-Scott South Pole Station power source. Esper, J., [1988, p.18-19, eng] **44-1314**
- Devices measuring deformations and stresses in ice fields. Smirnov, V.M., et al, [1989, 5p., eng] **44-1499**
- TSPZ snowdrift gages and results of their testing. Chernous, P.A., et al, [1989, p.95-101, rus] **44-1577**
- Cold regions weather data systems. Bates, R.E., et al, [1989, p.139-145, eng] **44-1652**
- NDT in cold regions: a review of the state-of-the-art of deflection testing. Coetzee, N.F., et al, [1989, p.198-209, eng] **44-1658**
- Case studies in application of pavement instrumentation. Bentsen, R.A., et al, [1989, p.376-384, eng] **44-1673**
- Experience of pavement instrumentation at TRRL. Addis, R.R., [1989, p.385-393, eng] **44-1674**
- Construction of fully instrumented test pavements in North Carolina. Stubstad, R.N., et al, [1989, p.394-401, eng] **44-1675**
- Evaluations of the Rosemount Icing Detector. Baumgardner, D., et al, [1989, p.971-979, eng] **44-1725**
- Measuring the thermophysical properties of frozen soils. Zaitsev, V.S., [1986, p.165-169, eng] **44-1728**
- Step frequency radar experiments on the antarctic sea ice. Uratsuka, S., et al, [1989, p.127-132, eng] **44-1810**
- Laboratory method of determining the frost heave of soils. Ganeles, L.B., et al, [1989, p.41-46, rus] **44-2150**
- Thermocompressive method of testing frozen soils by thawing. Orzhekovskii, I.U.R., [1989, p.46-52, rus] **44-2151**
- NOAA WP-3D instrumentation and flight operations on AGASP-II. Schnell, R.C., et al, [1989, p.3-16, eng] **44-2165**
- Calibration of a wire device for measuring supercooled liquid water. Hill, G.E., [1989, p.961-970, eng] **44-2189**
- Recommendations for selecting apparatus for thermometric systems. Pakulin, V.A., [1985, p.68-76, rus] **44-2376**
- General aspect of correction of errors in precipitation measurements abroad. Yang, D.Q., [1989, p.177-183, chi] **44-2413**
- Instrumental simultaneous determination of ship speed and ice cover characteristics. Tarashevich, V.N., et al, [1989, p.100-108, rus] **44-2829**
- Ice penetrating arctic oceanographic buoy (AOB). Selsor, H.D., [1989, p.101-103, eng] **44-3140**
- Sea ice thickness measurement. Kovacs, A., et al, [1989, p.394-424, eng] **44-3159**
- Development of an underwater frazil-ice detector. Daly, S.F., et al, [1990, p.77-82, eng] **44-3541**
- Device for measuring low temperature properties of electrically conducting materials. Buravoi, S.E., et al, [1988, p.100-104, eng] **44-3591**
- Water and ice content in the active layer. Fortier, R., et al, [1990, p.263-269, fre] **44-3671**
- Remote water-temperature measurement. Daly, S., [1989, 6p., eng] **44-3792**
- Biological instrumentation for underice studies in the Arctic. Herman, A.W., [1988, p.49-53, eng] **44-3803**
- Snow-surface temperature analysis. Bates, R.E., et al, [1989, p.109-116, eng] **44-4003**
- Ice forces measured by two-dimensional ice force panels. Wessels, E., et al, [1989, p.1428-1439, eng] **44-4440**
- Piezocane calibration and accuracy for soft soil investigation. Mulabdic, M., et al, [1990, 62p., eng] **44-4461**
- See also: Airborne radar; Barometers; Borehole instruments; Calorimeters; Cloud height indicators; Dynamometers; Evaporimeters; Frigonimeters; Hygrometers; Magnetometers; Meteorological instruments; Moisture meters; Nucleus counters; Penetrometers; Photometers; Precipitation gages; Probes; Psychrometers; Radiation measuring instruments; Snow pillows; Snow survey tools; Strain measuring instruments; Thermistors; Thermocouples; Thickness gages
- Mechanical ice prevention**
- See also: Ice removal
- Mechanical properties**
- Mechanics of damage in rate-sensitive construction materials. Sunder, W.S., et al, [1987, 120p., eng] **44-719**
- Breakup of antarctic fast ice. Crocker, G.B., et al, [1989, p.61-76, eng] **44-829**
- Durability of particulate grouts for isolation of low-level radioactive wastes. Okonkwo, I.O., [1989, 490p., eng] **44-965**
- Physical processes in peat bogs. Lishtvan, I.I., et al, [1989, 284p., rus] **44-1034**
- Investigation into the post-stable behavior of a tube array in cross-flow. Lever, J.H., et al, [1989, p.457-465, eng] **44-1536**
- Interaction between an ice field and a system of cylindrical piles. Matskevich, D.G., et al, [1988, p.170-174, eng] **44-1868**
- Fatigue strength of polymer films at subzero temperature. Parfeev, V.M., et al, [1988, p.685-693, eng] **44-1881**
- New welding procedure for icebreaker hulls. Toyosada, M., et al, [1986, p.199-210, eng] **44-2063**
- Frost bursting: a violent expression of frost action in rock. Michaud, Y., et al, [1989, p.2075-2080, eng] **44-2272**
- In situ determination of creep properties of sea ice with the pressurimeter. Murat, J.R., et al, [1989, p.575-594, eng] **44-2644**
- Fate and transport of contaminants in frozen soils. Ayorinde, O.A., et al, [1990, p.202-211, eng] **44-2984**
- Continuous motion of a ship in ridged ice. Tunik, A.L., [1984, p.M/1-M/9, eng] **44-3461**
- Ice cutters for mobility of offshore drilling structures. Slocum, R.W., [1984, p.N/1-N/9, eng] **44-3462**
- Creep and mechanical performance of polymers at low temperatures. Askadskii, A.A., et al, [1990, p.25-28, rus] **44-4343**
- Physical and mechanical model of cold brittleness. Meshkov, I.U.A., [1990, p.141-146, rus] **44-4368**
- Multicyclic fatigue of fluoroplastics at low temperatures. Muradkhanov, V.A., et al, [1990, p.157-160, rus] **44-4372**
- Mechanical properties of carbonic nickel steels at low temperatures. Perkas, M.D., et al, [1990, p.181-186, rus] **44-4377**
- Features of plastic deformation and failure of NT-50 cables. Pokhil, I.U.A., et al, [1990, p.191-197, rus] **44-4379**
- Elasticity tests under conditions of offset of the applied loads. Skripnik, N.V., [1990, p.219-224, rus] **44-4386**
- See also: Avalanche mechanics; Ice mechanics; Rock mechanics; Snow mechanics; Soil mechanics
- Mechanical tests**
- Fracture of multi-year sea ice under triaxial stress. Sammonds, P.R., et al, [1989, p.258-263, eng] **44-1200**
- Analytical models of local concrete-steel bond at low temperature. Huang, X.P., et al, [1989, p.159-171, eng] **44-1760**
- Subice suction corer for sampling epontic ice algae. Welch, H.E., et al, [1988, p.562-568, eng] **44-1863**
- Strength of fiberlasses and organoplastics under low climatic temperatures. Kuzmin, S.A., et al, [1989, p.49-53, eng] **44-1882**
- Evaluation of a water jet barrier in ice conditions. Laperriere, F., [1989, p.8-11, eng] **44-2429**
- Correlation of results of plate and compression tests on frozen soils under thawing. Sorokin, V.A., et al, [1990, p.160-161, eng] **44-3257**
- Curing and strength characteristics of cold setting Cement Fondu grout. Biggar, K.W., et al, [1990, p.349-356, eng] **44-3681**
- Evaluation of the Caterpillar Challenger tractor for use in Antarctica. Blaisdell, G.L., et al, [1989, 12p. + figs., eng] **44-3762**
- Icebreaker midbody resistance--phase 2: beam variation. Baker, D., et al, [1990, 176p., eng] **44-3769**
- Elastic visco-plastic modelling of a frozen sand using equivalent time. Yin, J.H., et al, [1990, p.133-139, eng] **44-3799**
- Low-temperature test object temperature variations. Ostapenko, L.S., [1990, p.649-654, eng] **44-3899**
- Double torsion test applied to fine grained and freshwater columnar ice and sea ice. Parsons, B.L., et al, [1988, 12p., eng] **44-3950**
- Comparative model tests in ice of a Canadian Coast Guard R-class icebreaker. Tatinclaux, J.C., et al, [1989, p.1/1-1/18, eng] **44-3984**
- Hydraulically actuated test frame for the field determination of ice flexural properties. Demuth, M.N., et al, [1989, p.242-246, eng] **44-4021**
- Some exploratory tests on circular and sidewall ACIB concepts. Colbourne, B., et al, [1989, p.39-55, eng] **44-4134**
- Ice strength index--phase III. Baker, D.N., [1990, 56p. + append., eng] **44-4140**
- Pressurimeter creep testing in ice: calibration and test procedures. Kjartansson, B.H., et al, [1990, p.3-9, eng] **44-4147**
- Meetings**
- Annual report, 1988. [1988, 28p., eng] **44-98**
- Ninth All-Union Glaciological Symposium in Tbilisi. Ushakov, A.I., [1989, p.209-224, rus] **44-358**
- Arctic research of the United States, Vol.3. [1989, 71p., eng] **44-471**
- Congress of engineering geologists, hydrogeologists and geocryologists. Trofimov, V.T., et al, [1989, p.3-20, rus] **44-1252**
- Congress of engineering geologists, hydrogeologists and geocryologists. Trofimov, V.T., [1989, p.88-91, rus] **44-1342**
- Proceedings of the NIPR Symposium on Polar Meteorology and Glaciology, No.2. Kawaguchi, S., ed. [1989, 182p., eng] **44-1799**

- Results of the Conference of Arctic-Rim Countries, Leningrad, Dec. 1988. Kotliakov, V.M., et al. [1989, p.104-110, eng] **44-2439**
- Saving the North: notes from an international symposium on geocryology. Kliuchnikova, L.F., [1989, p.16-23, rus] **44-2655**
- Proceedings of the NIPR Symposium on Polar Meteorology and Glaciology, No.3. Kawaguchi, S., ed. [1990, 114p., eng] **44-3544**
- Proceedings of the Fifth Canadian Permafrost Conference, 1989. [1990, 424p., eng] **44-3635**
- Proceedings of the International Radiation Symposium, 1988. [1989, 653p., eng] **44-4040**
- Melting**
- Thermal coefficients of a material through a two-phase Stefan problem. Stampella, M.B., et al. [1989, p.1407-1419, eng] **44-2060**
- Mathematical model of the ocean boundary layer under drifting melting ice. Svensson, U., et al. [1990, p.161-171, eng] **44-2791**
- Surface melting. Frenken, J.W.M., [1990, p.2-7, eng] **44-3574**
- Analysis of melting in the presence of natural convection in the melt region. Sparrow, E.M., et al. [1977, p.520-526, eng] **44-3749**
- Contribution to the theory of melting. Carmesin, H.O., [1990, p.4349-4357, eng] **44-3787**
- Study of water saturated porous media in the presence of convection. Chelliah, S., [1988, 196p., eng] **44-4499**
- See *also*: Artificial melting; Defrosting; Glacier melting; Ice melting; Snow melting; Thawing
- Melting points**
- Melting of ice in silica pores. Drost-Hansen, W., et al. [1989, p.1439-1441, eng] **44-1858**
- Melting behavior of fluid inclusions in halite crystals. Davis, D.W., et al. [1990, p.591-601, eng] **44-3364**
- Liquid-absent aqueous fluid inclusions and phase equilibria in the system CaCl₂-NaCl-H₂O. Schiffrins, C.M., [1990, p.611-619, eng] **44-3366**
- Phase changes in aqueous solutions. Aguirre-Puente, J., et al. [1990, p.61-68, fre] **44-3644**
- Monte Carlo study of melting of a model bulk ice. Han, K.K., [1989, 89p., eng] **44-4283**
- Meltwater**
- Controls on sedimentation in a late Devonian ice-dammed lake, Achnasheen, Scotland. Benn, D.I., [1989, p.31-42, eng] **44-83**
- Snowmelt and water percolation in snow and firn. Bozhinski, A.N., et al. [1989, p.11-18, eng] **44-167**
- Hour-to-hour snowmelt rates and lysimeter outflow during an entire ablation period. Martinec, J., [1989, p.19-28, eng] **44-168**
- Variations of and runoff from glaciers in China. Wang, Z.T., [1989, p.45-52, eng] **44-171**
- Subglacial meltwater discharge in a tidewater glacier environment. Pirman, S.L., et al. [1989, p.265-281, eng] **44-218**
- Applied hydrology in the development of northern basins. [1988, 347p., eng] **44-232**
- Resident time of meltwater in different zones of small basins. Bengtsson, L., [1988, p.131-136, eng] **44-242**
- Meteorological effects on snowmelt runoff, Caucasus. Ananicheva, M.D., et al. [1989, p.160-164, rus] **44-354**
- On the generation of stream runoff in till soils. Rodhe, A., [1989, p.1-8, eng] **44-375**
- Trace metals in meltwater from the Rhône glacier. Lum-Shue-Chan, K., [1981, p.286-295, eng] **44-618**
- Erosion of bedrock by subglacial meltwater, Cantley, Quebec. Sharpe, D.R., et al. [1989, p.1011-1020, eng] **44-434**
- Particulate and dissolved matter in snowmelt runoff. Puigdefábregas, J., et al. [1986, p.69-80, eng] **44-485**
- Snowpack changes at a low elevation site. Kattelmann, R., et al. [1989, p.141-144, eng] **44-517**
- Sediment transport by meltwater streams. Bezinge, A., et al. [1989, p.1-5, eng] **44-537**
- Agricultural use of melt water in Hapar settlement, Pakistan. Butz, D., [1989, p.35-39, eng] **44-545**
- Subglacial drainage and suspended sediment transport. Collins, D.N., [1989, p.45-50, eng] **44-547**
- Hydrology of the Biafo Glacier, Karakoram range, Himalaya Mts. Hewitt, K., et al. [1989, p.103-108, eng] **44-556**
- Glacier surveys for planning hydro-electric power, West Greenland. Thomsen, H.H., et al. [1989, p.257-261, eng] **44-585**
- Effects of spatial and temporal variation in snowmelt on meltwater chemistry. Williams, M.W., et al. [1989, p.285-288, eng] **44-591**
- Snow temperature and meltwater percolation of a glacier. Cai, B.L., et al. [1989, p.60-68, chi] **44-651**
- Meltwater percolation through snow cover, Pt. I. Hamada, K., et al. [1988, p.89-101, jpn] **44-734**
- Sediment transport and deposition in a temperate glacial fjord, Glacier Bay, Alaska. Cowan, E.A., [1989, 453p., eng] **44-963**
- Variations of ionic species in a forest snowcover during spring melt. Jones, H.G., et al. [1987, p.271-282, eng] **44-1686**
- Replenishment of soil moisture reserves of agricultural fields. Shutov, V.A., et al. [1989, p.64-71, eng] **44-1837**
- Glacial meltwater inflow into the Gulf of Mexico. Kvasov, D.D., [1989, p.28-33, rus] **44-1912**
- Sorption concentration of mercury (II) on silica gel. Simonova, L.N., et al. [1987, p.1047-1050, rus] **44-2054**
- Ion elution through shallow homogeneous snow. Bales, R.C., et al. [1989, p.1869-1877, eng] **44-2125**
- Ice-snow meltwater debris flow in the Dongru Longba, China. Lu, R.R., et al. [1989, p.148-160, chi] **44-2409**
- Meltwater runoff model of Heigou Glacier No.8, Bogda Mt. Hu, X.G., et al. [1989, p.279-286, chi] **44-2423**
- Automatic monitoring of short duration snowmelt events in a Nova Scotia headwater stream. Howell, G.D., et al. [1989, p.145-153, eng] **44-2434**
- 25th annual meeting. [1990, 82p., eng] **44-2767**
- Decrease of ground surface temperature from seepage of snowmelt. Fukami, H., et al. [1989, p.320-324, jpn] **44-2896**
- Simulating the freezing and thawing of arable land in Sweden. Lundin, L.C., [1990, p.87-98, eng] **44-2970**
- Two component mixing during acid anion leaching during rain-on-snow events. Jones, H.G., et al. [1989, p.239-250, eng] **44-3038**
- Mixing of acid meltwater with groundwater in a forested basin in Finland. Bengtsson, L., et al. [1989, p.251-258, eng] **44-3039**
- Infiltration of water into soil during melting of snow. Gusev, E.M., [1990, p.108-120, eng] **44-3247**
- Meltwater drainage from temperate glacial ice. Simmons, R.J., [1990, 58p., eng] **44-3265**
- Glacial meltwater input to the Alaska Coastal Current: evidence from oxygen isotope measurements. Kipphut, G.W., [1990, p.5177-5181, eng] **44-3277**
- Nutrient concentrations in antarctic pack ice during the austral winter. Garrison, D.L., et al. [1990, p.35-40, eng] **44-3814**
- Meltwater runoff into rivers from glaciers in China. Yang, Z.N., [1989, p.187-204, chi] **44-3891**
- Ski friction and thermal response. Warren, G.C., et al. [1989, p.223-225, eng] **44-3924**
- Studies of snow chemistry in the Scottish Highlands. Davies, T.D., et al. [1989, p.1-13, eng] **44-3994**
- Influence of summertime precipitation events on meltwater production in the Karakoram, northern Pakistan. Wake, C.P., [1989, p.28-35, eng] **44-3996**
- Meltwater solute concentrations at a forested site. Peters, N.E., et al. [1989, p.45-56, eng] **44-3998**
- Does snow have ion chromatographic properties. Hewitt, A.D., et al. [1989, p.165-171, eng] **44-4009**
- Snowpack water losses during melt in a deciduous forest. Buttler, J., et al. [1989, p.267-271, eng] **44-4025**
- Sub-ice springmelt water circulation in a small lake. Roberge, J., et al. [1989, p.298-302, eng] **44-4031**
- Geochemistry of subglacial calices: implications for the hydrology of the basal water film. Sharp, M., et al. [1990, p.141-152, eng] **44-4047**
- Modeling of meltwater infiltration in subfreezing snow. Illangasekare, T.H., et al. [1990, p.1001-1012, eng] **44-4129**
- Drumlins, subglacial meltwater floods, and ocean responses. Shaw, J., [1989, p.853-856, eng] **44-4143**
- Drumlins, subglacial meltwater floods, and ocean responses—comment and reply. Kehew, A.E., et al. [1990, p.479-480, eng] **44-4144**
- Subglacial meltwater channels at Jones Ridge. Colhoun, E.A., et al. [1989, p.234-246, eng] **44-4289**
- See *also*: Snowmelt
- Metal ice friction**
- Procedure for predicting propeller-ice interaction forces. Chernuka, M.W., et al. [1989, 263p., eng] **44-391**
- Corrosion protection of arctic offshore structures. Final report. Sackinger, W.M., et al. [1985, 183p., eng] **44-855**
- Friction panel measurements in icebreaking ship tests. Liukkonen, S., [1989, p.251-253, eng] **44-1198**
- Abrasion of steel piles by sea ice. Sato, K., et al. [1987, p.353-359, jpn] **44-2551**
- Friction between steel and ice at high pressure. Saeki, H., et al. [1989, p.404-409, jpn] **44-2906**
- Comparative model tests in ice of a Canadian Coast Guard R-class icebreaker. Tatinclaux, J.C., et al. [1989, p.1/1-1/18, eng] **44-3984**
- Comparative model tests in ice of a Canadian Coast Guard R-class icebreaker. Tatinclaux, J.C., et al. [1990, p.31-52, eng] **44-4421**
- Metal snow friction**
- Thermal response of downhill skis. Warren, G.C., et al. [1989, 40p., eng] **44-2361**
- Friction in interaction between snow and snow removal machinery. He, T.J., et al. [1989, p.171-176, jpn] **44-2875**
- Metals**
- Trace metals in meltwater from the Rhône glacier. Lum-Shue-Chan, K., [1981, p.286-295, eng] **44-618**
- Presence of heavy metals in urban snow. Sakai, H., et al. [1985, p.141-149, eng] **44-1931**
- Application of new metal "titanium" for winter living. Kusamichi, H., [1986, p.235-241, jpn] **44-2465**
- Effects of cryogenic temperatures on materials properties. Bibliography. [1990, 94p., eng] **44-2817**
- Low temperature effects on tribotechnical properties of coated surfaces. Gamulia, G.D., et al. [1989, p.60-65, eng] **44-3009**
- Thermal conductivity of snow and snow/metal mixtures. Murakami, S., et al. [1989, p.13-25, jpn] **44-3123**
- Device for measuring low temperature properties of electrically conducting materials. Buravoi, S.E., et al. [1988, p.100-104, eng] **44-3591**
- Effect of ordered discreteness on the temperature dependence of strength characteristics of GTsK metals. Borisenko, V.A., et al. [1990, p.43-47, rus] **44-4347**
- Physics of alloys of titanium and zirconium at low temperatures. Briukhanov, A.A., et al. [1990, p.47-50, rus] **44-4348**
- Features of alloy metal welds at low temperatures. Polushkin, I.U.A., et al. [1990, p.186-191, rus] **44-4378**
- A method for evaluation of fracture resistance in metals. Savrasov, V.V., [1990, p.207-210, rus] **44-4382**
- Cyclic strength of BrB2 alloy at temperatures of 293 and 77 K. Samarina, V.K., [1990, p.210-213, rus] **44-4383**
- Determination of low-temperature strengthening of aluminum alloys. Stepanov, G.A., et al. [1990, p.229-233, rus] **44-4388**
- Metals at cryogenic temperatures under magnetic exposure. Strizhalo, V.A., et al. [1990, p.233-237, rus] **44-4389**
- Cyclic durability of Nb-Cu in the temperature range of 293-4.2 K. Iakovenko, L.F., [1990, p.261-264, rus] **44-4395**
- See *also*: Aluminum; Gold; Steels
- Metamorphism (snow)**
- Winter cover of a high-mountain Mediterranean lake (Estany Redó, Pyrenees). Catalán, J., [1989, p.519-527, eng] **44-6**
- Constitutive theory for snow as a continuous multiphase mixture. Adams, E.E., et al. [1989, p.553-572, eng] **44-274**
- Wet-snow metamorphism in relation to liquid water content. Brun, E., [1989, p.22-26, eng] **44-542**
- See *also*: Snow recrystallization
- Meteorological charts**
- Meteorological data from Polish antarctic station "H. Arctowski" for 1987. Niemiec, J., et al. [1989, p.251-254, eng] **44-2739**
- Meteorological data from Polish antarctic station "H. Arctowski" for 1988. Baranski, A., et al. [1989, p.255-258, eng] **44-2740**
- Climate at King Sejong Station, 1988-1989. Lee, B.Y., et al. [1990, p.47-57, kor] **44-4252**
- Meteorological data**
- Experience of operational avalanche forecasting. Buser, O., [1989, p.31-34, eng] **44-544**
- Synoptic features of 1986 winter at Arctowski Station. Kowalski, D., et al. [1989, p.57-71, eng] **44-702**
- Estimation of wet snow accretion on structures. Makkonen, L., [1989, p.83-88, eng] **44-831**
- Mesoscale meteorological parameter retrieval for polar latitudes. Claud, C., et al. [1989, p.205-212, eng] **44-1014**
- Water quality and stream flow in an Alaska watershed. Hilgert, J.W., et al. [1987, 37p., eng] **44-1084**
- Wind speed, ocean currents and sea ice drift, Beaufort Sea. Kozo, T.L., [1988, p.183-200, eng] **44-1138**
- Small high-latitude ocean storms. Twitchell, P.F., et al. [1988, p.207-214, eng] **44-1140**
- Weather station drift in the Beaufort Sea coastal ice zone. Lipom, P., [1988, p.301-310, eng] **44-1148**
- Bering Sea data collection aboard USCGC Polar Star, Feb.-Mar. 1984, Vol. I. Voelker, R.P., et al. [1984, 259p., eng] **44-1214**
- Snow survey of Great Britain 1988/89. [1989, 21p., eng] **44-1224**
- JARE-26 meteorological observations at Showa Station, 1985. Meshida, S., et al. [1989, p.191-219, jpn] **44-1470**
- Evaluating avalanche hazards on the basis of meteorological information. Grishchenko, V.F., [1989, p.200-209, rus] **44-1590**
- Cold regions weather data systems. Bates, R.E., et al. [1989, p.139-145, eng] **44-1652**
- Global annual snow accumulation by months. Schutz, C., et al. [1988, 85p., eng] **44-2059**
- Variability of snowfall in eastern United States. Faiers, G.E., [1989, p.23-25, eng] **44-2090**
- Review of the climate of Mawson—a representative strong wind site in East Antarctica. Streten, N.A., [1990, p.79-89, eng] **44-2358**
- Meteorological data from Polish antarctic station "H. Arctowski" for 1987. Niemiec, J., et al. [1989, p.251-254, eng] **44-2739**
- Meteorological data from Polish antarctic station "H. Arctowski" for 1988. Baranski, A., et al. [1989, p.255-258, eng] **44-2740**
- MTCLIM: a mountain microclimate simulation model. Hungerford, R.D., et al. [1989, 52p., eng] **44-2834**
- Management of satellite data reception at Molodetzhnaya Station. Evseev, V.V., [1989, p.84-89, rus] **44-3071**

Meteorological data (cont.)

- Application of satellite ice information to assist navigation during scientific research in the Antarctic. Evseev, V.V., et al. [1989, p.89-94, rus] **44-3072**
- Development of technology for cold regions in Norway. Loset, S., [1988, p.65-87, eng] **44-3317**
- Proceedings of the NIPR Symposium on Polar Meteorology and Glaciology, No.3. Kawaguchi, S., ed. [1990, 114p., eng] **44-3544**
- Climate of Moscow for the last 30 years. Petrosyants, M.A., ed. [1989, 94p., rus] **44-3712**
- Meteorological observations at Showa Station, 1987. Kaneto, S., et al. [1990, p.15-45, jpn] **44-3740**
- JARE-29 meteorological research, 1988. Wada, M., et al. [1990, p.46-75, jpn] **44-3741**
- Ice thickness data—winter 1986-1987. [1990, 59p., eng] **44-3773**
- Regional climatic trends in northern New England. Haugen, R.K., et al. [1988, p.64-71, eng] **44-3927**
- Meteorology of the antarctic Pacific. Mullan, A.B., et al. [1990, p.21-54, eng] **44-4053**
- TAIS system and scientific and operational support of navigation. Kapustin, A.N., et al. [1990, p.110-113, eng] **44-4076**
- Environment around King Sejong Station, 1988-1989. Chang, S.K., et al. [1990, p.59-65, kor] **44-4253**
- TROS operational vertical sounder temperature retrievals. Lutz, H.J., et al. [1990, p.11,747-11,754, eng] **44-4258**
- Daily snow data in the United States. Robinson, D.A., [1989, p.120-130, eng] **44-4261**

Meteorological factors

- Risks from glacier hazards in the Swiss Alps. Haerberli, W., et al. [1989, p.96-102, eng] **44-555**
- Snowmelt runoff of the Heihe River in the Qilian Mts. Feng, X.Z., et al. [1988, p.64-74, chi] **44-637**
- Avalanche formation in the Nishio Pass, Hokkaido. Shimizu, H., et al. [1988, p.35-44, jpn] **44-730**
- Proceedings of the Third All-Union Conference on Avalanches, 1986. [1989, 247p., rus] **44-1562**
- Evaluating the informational content of avalanche formation factors. Kanaev, L.A., et al. [1989, p.135-145, rus] **44-1582**
- New methods for avalanche forecasting. Drozdovskaya, N.F., et al. [1989, p.164-171, rus] **44-1585**
- Influence of the evaporation assessment method on the heat exchange during winter period. Jurak, D., [1989, p.93-106, eng] **44-2026**
- Ice detection system for roads could save money and lives. Edwards, B.D., [1984, p.1626, eng] **44-2092**
- Concentrations of atmospheric constituents observed at Alert, Canada. Chung, Y.S., [1989, p.317-330, eng] **44-2183**
- Winter's cruel fairyland of ice. Phillips, D., [1990, p.14-16, eng] **44-3079**
- Formation characteristics of different types of atmospheric precipitation. Aver'ianov, V.G., [1989, p.80-91, rus] **44-3497**
- Ice. Collins, R.L., [1989, p.43-47, eng] **44-3583**
- Sea ice circulation and ice concentration, Beaufort Sea. Serreze, M.C., et al. [1990, p.185-188, eng] **44-3848**
- Preliminary testing of a sea ice model for the Greenland Sea. Preller, R.H., et al. [1990, p.259-277, eng] **44-3863**
- Antarctic sector of the Pacific. Glasby, G.P., ed. [1990, 396p., eng] **44-4052**
- Atmospheric half-yearly cycle and sea ice extent. Enomoto, H., et al. [1990, p.9497-9511, eng] **44-4329**
- Coupled sea ice-mixed layer simulations for the southern ocean. Stössel, A., et al. [1990, p.9539-9555, eng] **44-4332**

Meteorological instruments

- Optical measurement of precipitation. Koh, G., [1989, 13p., eng] **44-694**
- Aerostat cold weather study. Technical report, 6 Mar.-31 Dec. 88. Kane, D.L., [1989, 59p., eng] **44-1050**
- Supercooled water and time sensor for cloud physics research. Nelson, L.D., [1985, 57p., eng] **44-1095**
- Collection rate of blowing snow particle counters. Kobayashi, S., [1986, p.98-102, jpn] **44-2451**
- See *also*: Barometers; Cloud height indicators; Evaporimeters; Enginometers; Hygrometers; Nucleus counters; Precipitation gauges; Psychrometers; Radiation measuring instruments; Snow pillows; Snow survey tools; Thermistors; Thermocouples

Meteorology

- Science in Antarctica, Vol.3: Meteorology. Kawaguchi, S., ed. [1988, 335p., jpn] **44-212**
- Meteorological and environmental inputs to aviation systems. Camp, D.W., ed. [1985, 226p., eng] **44-707**
- MIZEX 87 meteorology atlas. Guest, P.S., et al. [1988, 146p., eng] **44-710**
- See *also*: Atmospheric physics; Glacial meteorology; Marine meteorology; Synoptic meteorology; Weather

Microanalysis

- Microanalysis of sorted circles, Colorado Front Range. Harris, C., [1990, p.89-94, eng] **44-3648**

Microbiology

- Bacteriological studies in antarctic water and ice. Castellvi, J., [1988, p.169-175, spa] **44-390**

- Snow microorganisms and their interaction with the environment. Hoham, R.W., [1989, p.31-35, eng] **44-501**

- Ecological aspects of antarctic microbiology. Wynne-Williams, D.D., [1990, p.71-146, eng] **44-3253**

- Microbial ecosystems of Antarctica. Vincent, W.F., [1988, 304p., eng] **44-3711**

- Sea ice: a habitat for the foraminifer *Neogloboquadrina pachyderma*? Dieckmann, G., et al. [1990, p.86-92, eng] **44-3824**

- Microorganisms concentrated by frazil ice. Garrison, D.L., et al. [1990, p.92-96, eng] **44-3825**

- Suspended-matter scavenging by rising frazil ice. Reimnitz, E., et al. [1990, p.97-100, eng] **44-3826**

- Phagotrophy and fecal pellets from athecate dinoflagellate in sea ice. Buck, K.R., et al. [1990, p.75-84, eng] **44-3895**

- See *also*: Bacteria; Cryobiology; Soil microbiology

Microclimatology

- Climate of Niwot Ridge, Front Range, Colorado, U.S.A. Greenland, D., [1989, p.380-391, eng] **44-2010**

- MTCLIM: a mountain microclimate simulation model. Hungerford, R.D., et al. [1989, 52p., eng] **44-2834**

- Local climate of glaciers in Tianshan Mountains. Ohta, T., et al. [1989, p.325-334, eng] **44-3610**

- Controlling the thermal regime of tunnels in severe climatic conditions. Gendler, S.G., et al. [1990, p.18-22, rus] **44-4483**

- Soil, vegetation and climatic influences on slope hydrology. Ellesmere I. Woo, M.K., et al. [1990, p.85-93, eng] **44-4494**

- See *also*: Indoor climates

Microelement content

- Physical processes in peat bogs. Lishvan, I.I., et al. [1989, 284p., rus] **44-1034**

- Landscape-geochemical analysis of frozen-taiga geosystems. Shchetnikov, A.I., [1989, 127p., rus] **44-2068**

Microrelief

- Phytomass reserve and structure in patchy tundras of the eastern shore of Lake Taymyr. Pospelova, E.B., et al. [1984, p.12-18, eng] **44-280**

Microscope slides

- Aggregation of ice crystals. Kumar, P.P., [1989, p.382-387, eng] **44-1259**

- See *also*: Thin sections

Microscopy

- See *also*: Electron microscopy; Scanning electron microscopy

Microstructure

- Studies of giant and super-giant aerosol particles. Berezhinskii, N.A., et al. [1989, p.108-115, rus] **44-874**

- Hydrophysical processes in the sea surface layer. Vasilenko, V.M., et al. [1987, p.63-66, rus] **44-1595**

- Aerosol transfer, transformation of its microstructure, and ice-forming features. Berezhinskii, N.A., et al. [1989, p.45-52, rus] **44-2198**

- Crack nucleation in polycrystalline ice. Wu, M.S., et al. [1990, p.273-282, eng] **44-2235**

- Surface melting. Frenken, J.W.M., [1990, p.2-7, eng] **44-3574**

- Brittle-destruction criteria for alloy steel bending. Sarraf, V.I., et al. [1990, p.213-215, rus] **44-4384**

- Experimental studies of the microstructure of ice—methane hydrate agglomerate. Ershov, E.D., et al. [1990, p.38-44, rus] **44-4542**

Microwaves

- Microwave imagery of snow cover, upper Colorado River basin. Josberger, E.G., et al. [1989, p.73-84, eng] **44-1114**

- Microwave emission properties of subzero underlying surfaces. Kondrat'ev, K.I.A., et al. [1989, p.67-70, rus] **44-180**

- On the value of long-term satellite passive microwave data sets for sea ice/climate studies. Parkinson, C.L., [1989, p.9-20, eng] **44-293**

- Scattering of a spheroidal ice/water particle. Hume, J.L., et al. [1989, p.351-357, eng] **44-367**

- Overview of LIMEX'87 ice observations. Carsey, F.D., et al. [1989, p.468-482, eng] **44-401**

- Seasonal ice margin data for Beaufort and Chukchi Seas. Carsey, F.D., et al. [1989, p.541-551, eng] **44-408**

- Measurements of infrared emissivity of thin sea ice. Aota, M., et al. [1988, p.187-195, jpn] **44-739**

- Snow water equivalent in a mountain basin using satellite data. Rango, A., et al. [1989, p.740-745, eng] **44-1201**

- Potential of SAR in a snow and glacier monitoring system. Rott, H., et al. [1986, p.25-35, eng] **44-1238**

- RADTRAN microwave surface emission models. Isaacs, R.G., et al. [1989, p.433-440, eng] **44-1325**

- Microwave measurements of ice and snow. Hallikainen, M.T., et al. [1988, p.69-83, eng] **44-1427**

- Attempt to interpret sea-ice features from the MOS-1 passive microwave data. Ono, N., [1989, p.103-109, jpn] **44-3129**

- Remote sensing of sea ice. Hawkins, J.D., [1989, p.121-124, eng] **44-3143**

- Ice thickness radar measurements during CEAREX. Onstott, R.G., et al. [1989, p.451-460, eng] **44-3162**

- Passive microwave remote sensing of sea ice thickness. Swift, C.T., [1989, p.461-462, eng] **44-3163**

- Effects of summer melt on calculation of sea ice concentration. Cavalieri, D.J., et al. [1990, p.5359-5369, eng] **44-3278**

- The snow-radar: a new device for areal snow depth measurements. Andersen, T., et al. [1987, p.269-284, eng] **44-3316**

- Snow-radar: an efficient tool for areal snow pack assessments. Killingtveit, A., et al. [1988, p.259-271, eng] **44-3324**

- Electrical, physical and microwave properties of snow-covered floating ice. Garrity, C., [1990, p.57-61, eng] **44-3819**

- Remote sensing of saline ice covered with snow. Lohanick, A.W., [1990, p.61-67, eng] **44-3820**

- Time-lapse motion study of sea ice in the Greenland Sea. Gloersen, P., [1990, p.177-179, eng] **44-3845**

- SMMR observations of the sea ice regime in the Ross Sea, 1979-1985. Jacobs, S., et al. [1990, p.179-181, eng] **44-3846**

- NASA sea ice validation program for the DMSP SSM/I. Cavalieri, D.J., et al. [1990, p.197-203, eng] **44-3849**

- NASA SSM/I data processing and archiving of sea ice products. Morris, C.S., [1990, p.203-205, eng] **44-3850**

- Validation of the SSM/I and AES/YORK algorithms for sea ice parameters. Bjerkelund, C.A., et al. [1990, p.206-208, eng] **44-3851**

- Remote sensing of ocean surface winds with the special sensor microwave/imager (SSM/I). Goodberlet, M.A., et al. [1990, p.209-213, eng] **44-3852**

- Global snow variations derived from SMMR: preliminary results. Chang, A.T.C., et al. [1990, p.213-217, eng] **44-3853**

- Antarctic ice sheet brightness temperature variations. Jezek, K.C., et al. [1990, p.217-223, eng] **44-3854**

- Ice thickness and brightness temperature for sea ice. Eppler, D., et al. [1990, p.229-232, eng] **44-3856**

- Airborne passive microwave observations of arctic sea ice. Comiso, J.C., et al. [1990, p.233-235, eng] **44-3857**

- Review of microwave remote sensing of snow. Heacock, T., et al. [1989, p.287-290, eng] **44-4029**

- Ice microphysics and radiation transfer through a rain cloud. Smith, E.A., et al. [1989, p.627-630, eng] **44-4045**

- Arctic ice classification using satellite microwave data. Comiso, J.C., [1990, p.13,411-13,422, eng] **44-4545**

Migration

- Migration of soluble nickel and copper salts in snow cover. Ratkin, N.E., et al. [1988, p.60-64, rus] **44-196**

- Cryogenic migration of ions in ice-saturated dispersed soils. Lebedenko, I.U.P., [1989, p.21-30, rus] **44-1253**

- Effect of an electrical field on cryogenic migration in finely dispersed soils. Novikova, E.V., [1985, p.9-13, rus] **44-2364**

- Chemical migration in snowpack. Murphey, B.B., et al. [1989, p.282-286, eng] **44-4028**

Military engineering

- Smart weapons operability enhancement. Link, L.E., Jr., [1989, p.165-173, eng] **44-615**

Military equipment

- Technical feasibility test of field burner unit using diesel fuel. Moody, D.S., et al. [1989, 33p. + appends., eng] **44-474**

- Test of vehicle magnetic signature duplicator mine detector. Rhodes, D.A., [1989, 19p. + appends., eng] **44-475**

- Improving low temperature startability of M113 vehicles. Stupich, T.F., et al. [1988, 226p., eng] **44-711**

- Battery actuation of NITINOL at sub-zero temperatures. Goldstein, D., [1989, 22p., eng] **44-793**

- Portable command post shelter for cold regions. Smith, C.L., et al. [1989, 18p. + appends., eng] **44-1845**

- Final letter report, comparison test (CPT) of the M973 small unit support vehicle (SUSV). Moody, D.S., et al. [1989, 48p. + appends., eng] **44-1846**

- Analysis and forecasting at the Naval Polar Oceanography Center. Hinsman, D.E., [1989, p.112-120, eng] **44-3142**

- Rapid thermal ice penetration system. Andersen, J.K., [1989, p.224-242, eng] **44-3149**

- Proposed tactical investigation of a model arctic submarine. Richardson, C., [1989, p.249-259, eng] **44-3151**

- Arctic/cold weather surface ship program. Kover, D.J., [1989, p.303-313, eng] **44-3156**

- Hull forms for U.S. Navy surface ship ice transit. Milano, V.R., [1989, p.314-370, eng] **44-3157**

- LCAC arctic design initiative. Ehrhardt, J.P., [1989, p.371-391, eng] **44-3158**

Military facilities

- Winter field testing of U.S. Navy fleet hospital. Sletten, R.S., et al. [1988, 10p., eng] **44-269**

- Buildings and utilities in very cold regions: overview and research needs. Tobiasson, W., [1988, p.4-11, eng] **44-1011**

Military operation

- Snow-avalanche maps for use by the Norwegian Army. Lied, K., et al. [1989, p.170-174, eng] **44-568**

- Factors affecting rates of ice cutting with a chain saw. Coutermarsh, B.A., [1989, 14p., eng] **44-775**

- Submarine warfare in the Arctic: option or illusion. Sakitt, M., [1988, 93p., eng] **44-823**
- Geography and military confrontation in the North. Ostreg, W., [1989, p.11-15, eng] **44-1766**
- CBR operations in cold weather: a bibliography. Vol.1. Carlson, H.R., et al, [1989, 88p., eng] **44-1879**
- Impact of the winter environment on infrared target signatures. Lacombe, J., [1989, n.p., eng] **44-2428**
- Only two polar icebreakers left. Story, J.F., [1989, p.84-88, eng] **44-3012**
- Decline of the icebreaker fleet. Story, J.F., [1989, p.86, eng] **44-3013**
- Proceedings. [1989, 475p., eng] **44-3132**
- Models of the mechanical properties of ice. Richter-Menge, J.A., et al, [1989, p.87-99, eng] **44-3139**
- Weapon frequency arctic acoustic scattering. Bishop, G.C., [1989, p.156-185, eng] **44-3147**
- Ice penetrator development program. Ferrario, M.T., [1989, p.186-222, eng] **44-3148**
- Electromagnetic noise collection in the Arctic. Scarzello, J.F., et al, [1989, p.260-265, eng] **44-3152**
- Ice/de-icing problems. Jørgensen, T.S., [1987, p.45-61, eng] **44-3312**
- Sea control in the Arctic: a Soviet perspective. Egan, D.M., et al, [1987, 48p., eng] **44-3371**
- Winter bridging exercise on thick ice: Fort McCoy, Wisconsin, 1988. Coutermarsh, B.A., [1990, 24p., eng] **44-3957**
- Thermal infrared survey of winter trails at Fort Wainwright. Collins, C.M., et al, [1990, 16p., eng] **44-3988**
- Military research**
- Test of remote sensing chemical agent alarm. Potuznik, W.J., et al, [1989, 31p. + append., eng] **44-476**
- Swart weapons operability enhancement. Link, L.E., Jr., [1989, p.165-173, eng] **44-615**
- Frozen soil impact tests of strategic bombs. Dockery, H.A., et al, [1987, 25p., eng] **44-960**
- Military supplies**
- See *also*: Logistics
- Military transportation**
- LAMPS MK III environmental capabilities. Vollmer, M., [1989, p.53-55, eng] **44-3137**
- Mimas**
- Compaction and internal structure of Mimas. Eluszkiewicz, J., [1990, p.215-225, eng] **44-3599**
- Mine shafts**
- Application of AGF to the construction of the ventilation drifts at Selby Wistow Mine. Auld, F.A., [1989, p.513-524, eng] **44-928**
- Mine shaft-borehole thermal prospecting in perennially frozen rocks. Maslennikov, A.L., [1989, p.110-114, rus] **44-1727**
- See *also*: Shaft sinking
- Minerals**
- Significant metalliferous lode deposits and placer districts of Alaska. Nøkleberg, W.J., et al, [1987, 104p. + append., eng] **44-533**
- Martian dust particles as condensation nuclei: mineralogical factors. Gooding, J.L., [1986, p.56-74, eng] **44-2396**
- Rocks and soil of the martian surface. Sidorov, I.U.I., et al, [1989, 222p., rus] **44-2797**
- Mineralogy of glacial deposits in Spitsbergen. Stankowska, A., [1989, p.303-316, eng] **44-3055**
- Liquid-absent aqueous fluid inclusions and phase equilibria in the system $\text{CaCl}_2\text{-NaCl-H}_2\text{O}$. Schiffries, C.M., [1990, p.611-619, eng] **44-3366**
- Size distribution of gold grains in cryogenic zone. Talshev, T.T., et al, [1990, p.699-703, rus] **44-3561**
- Mineralogical analyses of Chukchi Sea sediments. Luepke, G., et al, [1989, 12p., eng] **44-3768**
- Present concept of the central Arctic geology and mineral resources. Gramberg, I.S., et al, [1990, p.279-285, eng] **44-4099**
- See *also*: Clay minerals
- Mines (excavations)**
- Temperature monitoring of frozen ground during construction of Gascogne Wood drifts, Selby Mine. Wills, A.J., et al, [1989, p.533-540, eng] **44-930**
- Mines (ordnance)**
- Test of vehicle magnetic signature duplicator mine detector. Rhodes, D.A., [1989, 19p. + append., eng] **44-475**
- Mining**
- Spitsbergen faces modernity. Iten, O., [1989, p.16-21, eng] **44-1535**
- Johnny Mountain gold mine—the high art of winter construction. Dick, R.C., [1989, p.54, eng] **44-1929**
- Permafrost mapping at Schefferville, Quebec. Granberg, H.B., [1989, p.249-269, eng] **44-2131**
- Effectiveness of using igdinite A-6 to crush permafrost and hard rock. Samoilov, V.I., et al, [1988, p.22-29, rus] **44-3704**
- See *also*: Mine shafts; Placer mining; Quarries; Shaft sinking
- Models**
- Principles of landscape analysis. Preobrazhenskii, V.S., et al, [1988, 191p., rus] **44-89**
- Modelling extreme effective precipitation. Bergström, S., et al, [1988, p.191-197, eng] **44-248**
- Estimation of wet snow accretion on structures. Makkonen, L., [1989, p.83-88, eng] **44-831**
- Models to project warming in polar regions. Dickinson, R.E., [1989, p.98-102, eng] **44-1023**
- Climatic change and bottom water formation. Hoffert, M.I., [1989, 27p., eng] **44-1067**
- Origin of arctic precipitation under present and glacial conditions. Johnsen, S.J., et al, [1989, p.452-468, eng] **44-1445**
- Interrelations of forest and swamp in a taiga zone. Glebov, F.Z., [1988, 182p., rus] **44-1719**
- Simple ice-ocean model for the Greenland Sea. Wood, R.G., et al, [1989, p.1865-1880, eng] **44-1735**
- Preliminary estimate of inertia effects in a bulk model of katabatic wind. Kikuchi, T., et al, [1989, p.61-69, eng] **44-1802**
- Ice flow and mass changes in Lewis Glacier, East Africa. Hastenrath, S., [1989, p.325-332, eng] **44-1893**
- Snow cover model for avalanche forecasting. Brun, E., et al, [1989, p.333-342, eng] **44-1894**
- Time-scale for adjustment of glaciers to changes in mass balance. Jóhannesson, T., et al, [1989, p.355-369, eng] **44-1897**
- Transverse ridges on rock glaciers. Loewenherz, D.S., et al, [1989, p.383-391, eng] **44-1900**
- Mass-balance gradients and climatic change. Oerlemans, J., et al, [1989, p.399-405, eng] **44-1902**
- Age-depth profile in the upper part of a steady-state ice sheet. Reeh, N., [1989, p.406-417, eng] **44-1903**
- New directions for surface water modeling. Kavvas, M.L., ed, [1989, 444p., eng] **44-2190**
- Simulations of the last glacial maximum. Joussame, S., et al, [1989, p.159-162, eng] **44-2783**
- Modelling the climate system with general circulation models. Rowntree, P.R., [1989, p.163-175, eng] **44-2784**
- Response of the ocean-atmosphere system to external influences. Kagan, B.A., et al, [1990, 304p., rus] **44-2803**
- Proposed tactical investigation of a model arctic submarine. Richardson, C., [1989, p.249-259, eng] **44-3151**
- Macromodel for road surface conditions during wintertime: initial results. Möller, S., [1989, 42p. + ap., swe] **44-3200**
- Anthropogenic aerosols in a haze and snow coupled model. Blanchet, J.P., et al, [1984, p.269-272, eng] **44-3435**
- Design of a new icebreaker. Molyneux, D., et al, [1990, p.E-1-E-11, eng] **44-3468**
- New water potential including polarization. Cieplak, P., et al, [1990, p.6755-6760, eng] **44-3593**
- Theoretical modeling of massive ice beds. Konrad, J.M., [1990, p.31-35, eng] **44-3640**
- Transport of hygroscopic particles in perennial ground ice. Perfect, E., et al, [1990, p.37-42, eng] **44-3641**
- Movement of water, heat, and solutes in frost susceptible soils. Padilla, F., et al, [1990, p.43-49, eng] **44-3642**
- Models for permafrost thickness variation. Gosink, J.P., et al, [1990, p.191-198, eng] **44-3662**
- Surface energy balance and ground heat flux in organic permafrost. Halliwell, D.H., et al, [1990, p.223-229, eng] **44-3666**
- Simulation of runoff and nitrate transport from mixed basins in Sweden. Brandt, M., [1990, p.13-34, eng] **44-3982**
- Comparative model tests in ice of a Canadian Coast Guard R-class icebreaker. Tatinclaux, J.C., et al, [1989, p.1-11/18, eng] **44-3984**
- Simulation of the effects of frost on the performance of roads subjected to salt deicing. Padilla, F., et al, [1989, p.257-261, fre] **44-4024**
- Modeling onset of glaciation. Crowley, T.J., et al, [1990, p.39-42, eng] **44-4158**
- Snowmelt runoff modeling in a balsam fir forest. Prevost, M., et al, [1990, p.1067-1077, eng] **44-4271**
- See *also*: Avalanche modeling; Ice models; Lattice models; Mathematical models; Simulation
- Moisture**
- Freeze-thaw test of rock samples from Dunhuang Cave. Fukuda, M., et al, [1988, p.223-230, jpn] **44-742**
- Determining moisture induced distress in asphalt concrete mixes. Heinicke, J.J., et al, [1987, 99p., eng] **44-784**
- Instrumentation needs—SHRP's view. Irwin, L.H., et al, [1989, p.20-22, eng] **44-1639**
- Applications of field instrumentation and performance monitoring of rigid pavements. Rollings, R.S., et al, [1989, p.268-277, eng] **44-1662**
- Iowa Department of Transportation pavement instrumentation. Dankbar, R., [1989, p.304-307, eng] **44-1666**
- Experience of pavement instrumentation at TRRL. Addis, R.R., [1989, p.385-393, eng] **44-1674**
- Hydrothermal problems of frozen soils. Savvinov, D.D., ed, [1988, 126p., rus] **44-1958**
- Moisture regime of cultivated frozen flood-plain meadow soils. Baishov, S.I., [1988, p.30-37, rus] **44-1961**
- Moisture and temperature dynamics of frozen soils. Savvinov, G.N., [1988, p.49-59, rus] **44-1964**
- Thermal conductivity coefficient of frozen chernozem-meadow soils. Mandarov, A.A., et al, [1988, p.76-86, rus] **44-1965**
- Moisture distribution in wastewater sludges. Tsang, K.W.R., [1989, 170p., eng] **44-2100**
- Studying the moisture in frozen rocks using sound methods. Tsubi'skil, V.R., et al, [1989, p.56-63, rus] **44-2153**
- Determining the volume of unfrozen moisture by centrifugal separation. Sheveleva, N.N., [1985, p.21-26, rus] **44-2366**
- Use of penetrating sealers on concrete bridge decks. Carter, P.D., [1989, p.292-302, eng] **44-2516**
- Liquid water content and droplet size calibration of the NASA Lewis Icing Research Tunnel. Ide, R.F., [1989, 28p., eng] **44-2812**
- See *also*: Humidity; Soil water; Water content
- Moisture detection**
- Optical method of determining snow moisture. Zalikhanov, M.Ch., et al, [1989, p.29-33, rus] **44-1780**
- Nondestructive evaluation of moisture migration in insulation material. Ayorinde, O.A., [1989, p.111-121, eng] **44-3760**
- Moisture transfer**
- Freeze-thaw testing of coarse aggregate in concrete. Vogler, R.H., et al, [1989, p.57-66, eng] **44-132**
- Moisture accumulation in insulated walls in cold regions. McFadden, T., [1989, p.73-83, eng] **44-214**
- Resident time of meltwater in different zones of small basins. Bengtsson, L., [1988, p.131-136, eng] **44-242**
- Heat and moisture transport in thawing of frozen soil. Anitskil, P.A., [1987, p.136-144, eng] **44-302**
- Heat-moisture transfer in thawing frozen ground. Anitskil, P.A., [1987, p.116-122, rus] **44-320**
- Cryogenic migration of ions in ice-saturated dispersed soils. Lebedenko, I.U., [1989, p.21-30, rus] **44-1253**
- Landforms and ground ice as evidence of the source of H₂O in permafrost. Harns, S.A., [1989, p.367-390, eng] **44-1262**
- Moisture and heat transfer in walls in cold regions. Burch, D.M., et al, [1989, p.513-531, eng] **44-1359**
- Moisture transfer through walls. Forest, T.W., [1989, p.532-542, eng] **44-1360**
- Distribution of the phase front in the freezing of finely-dispersed soils. Bronfenbrenner, L.E., et al, [1989, p.575-579, eng] **44-1717**
- Motive forces of moisture migration in cryogenic deformation. Lebedenko, I.U., [1988, p.1-10, eng] **44-1842**
- Estimates of antarctic precipitation. Bromwich, D.H., [1990, p.627-629, eng] **44-2104**
- Migration process of moisture and heaving in peat soils. Gamaunov, N.I., et al, [1985, p.3-8, rus] **44-2363**
- Heat and moisture transfer in the seasonal thawing of frozen soils. Permiakov, P.P., et al, [1989, p.828-832, eng] **44-2381**
- Environment of wintertime leads and polynyas. Andreas, E.L., [1989, p.273-288, eng] **44-3154**
- Sludge dewatering by natural freeze-thaw. Martel, C.J., [1990, p.116-122, eng] **44-3750**
- Laboratory experiments on frost shattering of rocks. Matsuoka, N., [1988, p.1-36, eng] **44-3932**
- Moisture transfer and ice accumulation in dispersed soils. Anitskil, P.A., [1990, p.44-50, rus] **44-4533**
- See *also*: Soil water migration
- Molecular energy levels**
- Slow-electron scattering in solid H₂O. Michaud, M., et al, [1987, p.4684-4699, eng] **44-1819**
- Role of adsorbed films on metal oxide surface in heterogeneous nucleation. Gorbunov, B.Z., et al, [1989, p.198-202, eng] **44-3260**
- Ice formation from supercooled water on metal oxides. Gorbunov, B.Z., et al, [1989, p.202-206, eng] **44-3261**
- Molecular structure**
- Phenomenon of cryogenic concentration of heavy water. Adzhiev, M.E., [1989, p.65-69, rus] **44-337**
- Lyotropic stress in lipid-water model systems. Förster, G., et al, [1989, p.1659-1668, eng] **44-1859**
- Conformational transitions of long chain molecules in frozen solutions. Hirschmann, R., et al, [1989, p.7296-7299, eng] **44-1861**
- Bjerrum defects and proton conduction in a one-dimensional ice model. Sergienko, A.I., [1988, p.496-498, eng] **44-2057**
- Complex formation in ice-like structures on interaction with ions. Pinchuk, V.M., et al, [1987, p.1407-1410, rus] **44-2424**
- Polyhedral clathrate hydrates of a strong base. Mootz, D., et al, [1990, p.139-157, eng] **44-2777**
- NMR studies of molecular motion in tetramethylammonium hydroxide pentahydrate. Ratcliffe, C.I., et al, [1990, p.159-175, eng] **44-2778**
- Dielectric and C-13 NMR studies of sulfur dioxide-hydroquinone clathrates. Davidson, D.W., et al, [1990, p.187-197, eng] **44-2779**
- Inclusion effect on heat capacities of simple molecules. White, M.A., et al, [1990, p.215-225, eng] **44-2780**
- Dielectric and C-13 NMR studies of the carbon monoxide clathrate hydrate. Desando, M.A., et al, [1990, p.3-16, eng] **44-2793**
- Water structure revealed by low-frequency Raman scattering. Rousset, J.L., et al, [1990, p.2150-2154, eng] **44-3026**

Molecular structure (cont.)

- Nuclear magnetic resonance study of lattice dynamics in Dianin's compound clathrate. Bernhard, T., et al., 1990, p.2178-2186, eng 44-3027
- Complex permittivity of water as a function of frequency and temperature. Kaatz, U., 1989, p.371-374, eng 44-3341
- Pressure induced amorphization of ice Ih. Tse, J.S., et al., 1990, p.3992-3994, eng 44-3624
- Lifetime of the bond network and gel-like anomalies in supercooled water. Sciortino, F., et al., 1990, p.1686-1689, eng 44-3629
- Liquid water—the story unfolds. Symons, M.C.R., 1989, p.491-494, eng 44-3697
- Structural study of H₂O clusters. Torchet, G., et al., 1989, p.245-260, eng 44-3699
- Helices of antifreeze. Pain, R.H., 1988, p.207-208, eng 44-3903
- Raman spectroscopic study of bulk water supercooled to -33°C. Hare, D.E., et al., 1990, p.25-33, eng 44-3966
- Phase transition of ice Ih-XI. Minagawa, I., 1990, p.1676-1685, eng 44-3971
- Mechanism of H₂, Li⁺, Na⁺, Be²⁺ and Mg²⁺ ion diffusion in ice-like structures. Pinchuk, V.M., et al., 1988, p.2993-2996, rus 44-4263

Monitors

- Continuous electrochemical monitoring of snow melt in Utah, U.S.A. Metcalf, R.C., et al., 1988, p.169-178, eng 44-246
- Real-Time Environmental Arctic Monitoring. Bocconcelli, A., 1987, 83p., eng 44-1081
- Potential of SAR in a snow and glacier monitoring system. Rutt, H., et al., 1986, p.25-35, eng 44-1238
- Monitoring pavement performance in seasonal frost areas. Berg, R.L., 1989, p.10-19, eng 44-1638
- Monitoring pavement responses to traffic loads. Christison, J.T., 1989, p.180-185, eng 44-1656
- Use of the multiplexed deflectometer for deflection measurements. Scullion, T., et al., 1989, p.186-196, eng 44-1657

Montmorillonite

See *also*: Clay minerals

Moon

- Search for polar ice on moon by gamma ray spectroscopy. Metzger, A.E., et al., 1990, p.449-460, eng 44-1908

Mooring

- Thermal regime of moorings in a Yakut river: port. Sobol', S.V., et al., 1989, p.68-71, rus 44-373
- Real-time environmental arctic monitoring (R-TEAM) deployment cruise. Clay, P.R., et al., 1988, 53p., eng 44-344
- New anti-ice type of articulated single-point mooring structure. Wang, Q.J., 1988, p.363-367, eng 44-1154
- High-capacity moorings and anchors for floating arctic platforms. Gerwick, B.C., 1988, p.451-457, eng 44-1162
- Ice shores of Antarctica. Dubrov, L.I., 1989, 156p., rus 44-2629

Moraine lakes

See *also*: Glacial lakes

Moraines

- Moraines: source of glaciological information. Kotliakov, V.M., ed., 1989, 236p., rus 44-36
- Younger Dryas-Preboreal moraines and deglaciation in southwestern Varmland, Sweden. Lundqvist, J., 1988, p.301-316, eng 44-80
- Deglaciation pattern indicated by the ice-margin formations in Northern Karelia, eastern Finland. Eröinen, M., et al., 1988, p.317-327, eng 44-81
- Glaciation and deglaciation of Forlandundet area, Spitsbergen. Forman, S.L., 1989, p.51-60, eng 44-84
- Variability in neoglaciation moraine morphology and composition. Shakesby, R.A., 1989, p.17-29, eng 44-106
- Glacial changes in the Tien Shan Mts. Serebriannyi, L.R., et al., 1989, p.81-87, eng 44-175
- On the generation of stream runoff in till soils. Rodhe, A., 1989, p.1-8, eng 44-375
- Boundary of the last ice sheet in the lower Pechora basin. Gushitser, B.I., et al., 1985, p.97-107, rus 44-482
- Glacier features of Qomolangma Mt. using remote sensing. Cao, M.S., et al., 1988, p.15-20, chj 44-630
- Geomorphology of the Pleistocene glaciation, Sichuan Province. Yi, C.L., 1989, p.76-81, chj 44-653
- Soil development on moraine ridges in southern Norway. McCarroll, D., et al., 1989, p.31-36, eng 44-907
- Comments on the genesis of De Geer moraines. Sollid, J.L., 1989, p.45-47, eng 44-908
- Holocene glaciation and climatic change Spitsbergen. Svalbard. Werner, A., 1989, 325p., eng 44-969
- Scales for the Valday glaciation of the Barents Sea shelf. Dunaev, N.N., et al., 1989, p.1437-1441, rus 44-979
- Contributions to the early Holocene deglaciation history in Greenland. Scholz, H., et al., 1989, p.22-41, eng 44-1001
- Medial moraines in Jotunheimen, Norway. Vere, D.M., et al., 1989, p.276-280, eng 44-1556

Holocene moraine and paleosol stratigraphy, British Columbia. Osborn, G., et al., 1989, p.311-322, eng 44-1853

Correlating glacial deposits in the European USSR using lithological data. Gaigalas, A.I., et al., 1989, p.179-185, rus 44-1921

Correlation of the glacial complex in the central Russian plain. Sudakova, N.G., et al., 1989, p.185-191, rus 44-1922

Geomorphological criteria for correlating moraines of various ages. Borisov, B.A., et al., 1989, p.78-85, rus 44-2050

Strandline Glacier, Terra Nova Bay, Antarctica. Baroni, C., et al., 1987, p.337-350, ita 44-2099

Primary glacial relief of interfluvies in a boundary region. Antonov, S.I., 1989, p.43-47, rus 44-2247

Glacial peripheral moraines at Gongba Glaciers, Gongga Mt. Kang, J.C., 1989, p.172-176, chj 44-2412

Pedogenesis of paleosols on moraines, Nyalam, Xizang. Shen, Y.P., et al., 1989, p.269-278, chj 44-2422

Glacial geomorphological research at Myrdalsjøkulen, Iceland, 1977-86. I: The northern margin. Krüger, J., 1988, p.68-77, eng 44-2578

Glaciotectionic structures and sediments at sub-polar glacier margins. Evans, D.J.A., 1989, p.113-123, eng 44-2617

Lake sediment cores from the Antarctic Peninsula. Zale, R., et al., 1989, p.211-220, eng 44-2623

Fabric and origin of diamictites in end moraines, Animas River valley, Colorado, U.S.A. Johnson, M.D., 1990, p.14-25, eng 44-2660

Alternative approach to the study of pedogenic chronosequences. Messer, A.C., 1989, p.271-229, eng 44-3005

De Geer moraines and basal flow of ice. Laaksonen, K., 1989, p.301-328, fin 44-3164

Model of the Late Pleistocene glaciation of the Eurasian Arctic shelf. Dunaev, N.N., et al., 1990, p.70-72, eng 44-4110

Effect of water depth on glacioclastic sedimentation. Fyfe, G.J., 1990, p.147-164, eng 44-4475

Proglacial glaciotectionic deformation and push moraine origin. Hart, J.K., 1990, p.165-180, eng 44-4476

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See *also*: Geomorphology

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Mortars

Acoustic measurement of freeze thaw damage to mortar. Shimada, H., et al., 1989, p.624-627, jpn 44-2923

Mosses

Characteristics of Wilkes Land soils. Heatwole, H., et al., 1989, p.225-234, eng 44-63

Methane flux time series for tundra environments. Whalen, S.C., et al., 1988, p.399-409, eng 44-374

Factors affecting moss and lichen distribution in Canadian forest tundra. Robinson, A.L., et al., 1989, p.25-48, eng 44-1202

Moss assemblages of a high arctic upland. LaFarge-England, C., 1989, p.491-504, eng 44-1528

Motor vehicles

Concerns over cooling. 1988, p.62-68, eng 44-752

Facing Jack Frost. 1988, p.78-80, eng 44-756

How fleets prepare. 1988, p.85-89, eng 44-757

Performance of trucks braking on ice. Ervin, R.D., et al., 1987, 201p., eng 44-1096

Snow removal trucks. Nakajima, J., et al., 1989, p.195-200, jpn 44-3525

Performance tests on 100-PS-model small-scale snowplows. Sasaki, C., et al., 1989, p.201-206, jpn 44-3526

See *also*: All terrain vehicles; Amphibious vehicles; Snow vehicles; Tank trucks; Tracked vehicles; Tractors

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See *also*: Engines

Mountain glaciers

"Folk glaciology" in Central Asia. Glazyrin, G.E., et al., 1989, p.35-43, rus 44-333

Mass transfer of Tien Shan glaciers. Mikhalev, V.N., 1989, p.86-92, rus 44-341

Mass balance of mountain glaciers. Diurgerov, M.B., et al., 1989, p.92-102, rus 44-342

Glacio-nival phenomena in the Polar Urals. Khodakov, V.G., et al., 1989, p.110-118, rus 44-344

Snow accumulation in the polar regions. Zhidkov, V.A., et al., 1989, p.118-124, rus 44-345

Seasonal snow distribution on Mt. Elbrus. Bazhev, A.B., et al., 1989, p.154-160, rus 44-353

Report on the 1984 glaciological survey. 1986, p.3-38, ita 44-519

Subglacial drainage and suspended sediment transport. Collins, D.N., 1989, p.45-50, eng 44-547

Glacier outburst floods at Mount Rainier, Washington State, U.S.A. Driedger, C.L., et al., 1989, p.51-55, eng 44-548

Snow accumulation determined by glacioclimatology. Karakoram, Pakistan. Wake, C.P., 1989, p.279-284, eng 44-590

Satellite images of glacial regions in China. Shi, Y.F., et al., 1988, p.1-11, chj 44-629

Glacier features of Qomolangma Mt. using remote sensing. Cao, M.S., et al., 1988, p.15-20, chj 44-630

Landsat image of the Karakoram Mountains. Mi, D.S., et al., 1988, p.21-22, chj 44-631

Glaciers, snow cover, and avalanches in the mountains of Kazakhstan. Gorbunov, A.P., ed., 1989, 224p., rus 44-1384

Calculating mountain glacier size using land-based and airborne radar survey data. Cherkasov, P.A., et al., 1989, p.18-37, rus 44-1386

Liquid runoff from the Tuyuksu basin in Zailiyskiy Alatau for 1964-1984. Makarevich, K.G., 1989, p.68-79, rus 44-1389

Features of landscape differentiation in mountain glacier complexes. Kokarev, A.L., 1989, p.216-223, rus 44-1398

Changes in the glacier cover of Severnaya Zemlya in the twentieth century. Govorukha, L.S., et al., 1987, p.300-305, eng 44-2055

Characteristics of the present glaciers on the northern slope of Mt. Qiaogeli. Qin, D.H., et al., 1989, p.125-136, chj 44-2407

Landforms due to glacial erosion in the Luojishan Mt. Liu, G.N., 1989, p.249-259, chj 44-2420

Snow-and-ice phenomena in the Polar Urals. Khodakov, V.G., et al., 1989, p.119-130, eng 44-2440

Effect of mountain glaciation on vertical movements and seismicity. Rodkin, M.V., 1989, p.130-140, rus 44-2748

Recent glacier development and climatic changes in the Tianshan Mountains in China. Hu, R.J., et al., 1989, p.141-148, eng 44-3166

Geochemistry of glaciers of Ak-Shyryk. Makarov, V.N., et al., 1989, p.130-143, rus 44-3241

Study of relationship between climate and mountain glaciers. Bai, Z.Y., 1989, p.287-297, chj 44-3607

Heat balance of glacier in Tianshan Mountains. Ohata, T., et al., 1989, p.298-309, eng 44-3608

Albedo of glacier in Tianshan Mountains during summer ablation. Bai, Z.Y., et al., 1989, p.311-324, chj 44-3609

Local climate of glaciers in Tianshan Mountains. Ohata, T., et al., 1989, p.325-334, eng 44-3610

Research of flow lines on the No. 1 Glacier at the head of the Urumqi River. Chen, K.G., 1989, p.363-371, chj 44-3613

Introduction to the glaciers in China. Shi, Y.F., ed., 1989, 231p. + photographs + maps, chj 44-3881

Glacier formation and snow line in China. Shi, Y.F., et al., 1989, p.11-28, chj 44-3882

Radiation and heat balances on alpine glaciers in China. Bai, C.Y., 1989, p.29-54, chj 44-3883

Ice formations of glaciers in China. Xie, Z.C., et al., 1989, p.55-68, chj 44-3884

Mass balance of glaciers in China. Xie, Z.C., et al., 1989, p.69-87, chj 44-3885

Flow of glaciers in China. Huang, M.H., 1989, p.88-104, chj 44-3886

Temperature of glaciers in China. Huang, M.H., 1989, p.105-121, chj 44-3887

Geochemistry of glaciers in China. Wang, P., 1989, p.122-137, chj 44-3888

Types and regional distribution of glaciers in China. Shi, Y.F., et al., 1989, p.138-170, chj 44-3889

Recent fluctuation of glaciers in China. Ren, B.H., 1989, p.171-186, chj 44-3890

Proceedings. 1990, 377p., eng 44-4148

Climatic effects on glacier distribution in British Columbia. Evans, I.S., 1990, p.58-64, eng 44-4163

Glacier and permafrost signals of 20th-century warming. Haeberli, W., 1990, p.99-101, eng 44-4170

Glacier fluctuations and climate in the Cordillera Blanca, Peru. Kaser, G., et al., 1990, p.136-140, eng 44-4179

Quantitative approximation of mountain glacial climates. Locke, W.W., III, 1990, p.164-167, eng 44-4185

Isotopic evidence of climatic change in a Swiss glacier. Lorrain, R., et al., 1990, p.168-171, eng 44-4186

Climatic information from the Chongce Ice Cap, West Kunlun, China. Nakawo, M., et al., 1990, p.205-207, eng 44-4194

Glacier recession and lake shrinkage in Central Asia. Shi, Y.F., et al., 1990, p.261-265, eng 44-4206

Effect of area distribution with altitude on glacier mass balance. Tangborn, W.V., et al., 1990, p.278-282, eng 44-4210

Twentieth-century glacier change at Svartisen, Norway. Theakstone, W.H., 1990, p.283-287, eng 44-4211

Glacial stage ice-core records from the Dundee Ice Cap, China. Thompson, L.G., et al., 1990, p.288-297, eng 44-4212

Review of Central Asian glacioclimatic data. Wake, C.P., et al., 1990, p.301-306, eng 44-4214

Neoglaciation in the southern Kenai Mountains, Alaska. Wiles, G.C., et al., 1990, p.319-322, eng 44-4218

Quaternary deglaciation and reforestation of Glacier National Park. Carrara, P.E., 1989, 64p., eng 44-4257

Contemporary Tien Shan glacier oscillations in climate diagnostics of recent years. Denisova, T.A., et al., 1988, p.128-135, rus 44-4319

Mountain soils

Stratified slope deposits in the Central Andes of Peru. Francou, B., 1988, p.47-76, fre 44-691

- First action on the slopes of the central Andes in Peru.** Franco, B., et al. (1989, p.97-112, fre) **44-1032**
- Modeling soil freezing and thawing on a rangeland watershed.** Flerchinger, G.N., et al. (1989, p.1551-1554, eng) **44-2593**
- Mountain tundra**
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Rock streams in bald-peak mountain belts. Romanovskii, N.N., et al. (1989, 148p., rus) **44-2403**
- Ice-snow meltwater debris flow in the Dongru Longba, China. Lu, R.R., et al. (1989, p.148-160, chi) **44-2409**
- Quaternary paleogeography and periglacial geomorphology of Mt. Huangshan. Zhou, B.G., et al. (1989, p.161-166, chi) **44-2410**
- Atmospheric icing rates with elevation on northern New England mountains, U.S.A. Ryerson, C.C., (1990, p.90-97, eng) **44-2664**
- MTCLIM: a mountain microclimate simulation model. Hungerford, R.D., et al. (1989, 52p., eng) **44-2834**
- Avalanche weather forecasting at the Northwest Avalanche Center, Seattle, Washington, U.S.A. Ferguson, S.A., et al. (1990, p.57-66, eng) **44-3722**
- Mountain barrier effects on ice island drift in a coastal ice zone. Lu, M., et al. (1990, p.163-168, eng) **44-3842**
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- Flow of granular materials. Savage, S.B., (1989, p.241-266, eng) **44-1090**
- Snow-and-ice phenomena in the Polar Urals. Khodakov, V.G., et al. (1989, p.119-130, eng) **44-2440**
- 25 years of the avalanche and mudflow control laboratory. Laptiev, M.N., et al. (1989, p.94-96, rus) **44-2613**
- Water equivalent of snow on the running area of mudflow. Yamada, T., et al. (1989, p.41-49, jpn) **44-3125**
- General overview of the surface of Mars pt.3. Jöns, H.P., (1990, p.131-164, ger) **44-3411**
- Debris flows and lake bursts from glaciers in China. Deng, Y.X., (1989, p.205-220, chi) **44-3892**
- Municipal engineering**
Diversification of snow removal systems. Toma, S., (1988, p.47-61, jpn) **44-1289**
- Tapping a glacier. Morse, D., (1989, p.38-41, eng) **44-2524**
- Asahikawa winter plan. Matsushita, K., et al. (1988, p.604-609, jpn) **44-2733**
- Snow removal along protected urban rivers. Hamada, T., et al. (1989, p.271-276, jpn) **44-3590**
- Naleds**
Relationship between ground and river waters of the Ural naled belt. Oberman, N.G., (1989, p.64-73, rus) **44-150**
- Radiation balance of melting naleds. Deifkin, B.N., (1989, p.73-79, rus) **44-151**
- Naleds of the Yamal and Gydan peninsulas. Kritsuk, L.N., (1989, p.86-92, rus) **44-153**
- Paragenesis of naleds and ground ice. Alekseev, V.R., (1989, p.81-86, rus) **44-340**
- Glacio-nival phenomena in the Polar Urals. Khodakov, V.G., et al. (1989, p.110-118, rus) **44-344**
- Snow-and-ice phenomena in the Polar Urals. Khodakov, V.G., et al. (1989, p.119-130, eng) **44-2440**
- Engineering and geocryological zoning along the Amur-Yakutsk Main Line within the Aldan plateau. Dorofeev, I.V., et al. (1989, p.20-31, rus) **44-3231**
- Naleds in the northern Ural. Oberman, N.G., (1989, p.67-73, rus) **44-3236**
- Technical measures for reduction of ice damage. Carstens, T., et al. (1987, p.231-240, eng) **44-3314**
- Thermal infrared survey of winter trails at Fort Wainwright. Collins, C.M., et al. (1990, 16p., eng) **44-3988**
- Naleds along a railroad. Efimov, I.U.G., et al. (1990, p.89-101, rus) **44-4306**
- Natural gas**
Permafrost as an oil and gas bearing measure. Timonina, N.N., (1985, p.119-124, rus) **44-469**
- Prediction of the effect of a flare on permafrost. Rubtsov, N.A., et al. (1986, p.33-37, eng) **44-1729**
- Gas hydrate formation as a special type of oceanic cryolithogenesis. Solov'ev, V.A., et al. (1989, p.115-120, rus) **44-1756**
- Optimal regimes in operating natural gas production installations. Korotaev, I.U.P., et al. (1989, 263p., rus) **44-2102**
- Gas survey in the snow of Kuznetsk basin. Vyshemirskii, V.S., et al. (1989, p.182-183, rus) **44-2605**
- Hydrocarbon gas in gas-hydrate interval, North Slope. Collett, T.S., et al. (1990, p.279-287, eng) **44-3361**
- Origin of natural gas hydrates on the North Slope of Alaska. Collett, T.S., et al. (1989, p.1-9, eng) **44-3802**
- Geology, soils and vegetation of gas condensate fields in Tyumen'. Masalkin, S.D., et al. (1989, 49p., rus) **44-3989**
- Main factors of regional oil-and-gas-bearing potential in the Soviet West Arctic. Ostistyl, B.K., et al. (1990, p.359-361, eng) **44-4107**
- Natural resources**
Permafrost as an oil and gas bearing measure. Timonina, N.N., (1985, p.119-124, rus) **44-469**
- Significant metalliferous lode deposits and placer districts of Alaska. Nokleberg, W.J., et al. (1987, 104p. + append., eng) **44-533**
- Yearbook, fiscal year 1988. (1989, 134p., eng) **44-657**
- Boston Glacier research natural area, 6. Wiberg, C., et al. (1978, 16p., eng) **44-1213**
- Making oil and gas development in arctic regions ecological. Shishov, V.N., et al. (1990, p.19-22, rus) **44-2657**
- Conference of arctic and nordic countries on coordination of arctic research; Proceedings. Pt.1 and Pt.2. (1990, 366p. + 445p., eng) **44-4061**
- Arctic water resources and their studies. Ivanov, V.V., (1990, p.193-202, eng) **44-4089**
- Present concept of the central Arctic geology and mineral resources. Gramberg, I.S., et al. (1990, p.279-285, eng) **44-4099**
- Main factors of regional oil-and-gas-bearing potential in the Soviet West Arctic. Ostistyl, B.K., et al. (1990, p.359-361, eng) **44-4107**
- All-Union conference on ecological impact of oil and gas industry, 1988. (1989, 195p., rus) **44-4505**
- Oil and gas industry and ecological protection. Mazur, I.I., (1989, p.3-8, rus) **44-4506**
- Oil and gas engineering in relation to the ecology in the North. Novikov, I.P., et al. (1989, p.26-39, rus) **44-4509**
- Oil and gas industry in tundra and ecological safety. Mazur, I.I., et al. (1989, p.49-57, rus) **44-4511**
- Efficient use of gas condensers and crude oil in the Yakutsk ASSR. Lvova, Z.M., et al. (1989, p.72-78, rus) **44-4514**
- Environmental protection during construction of oil and gas systems. Gritsan, O.E., et al. (1989, p.98-101, rus) **44-4518**
- Design of facilities for oil and gas industry in tundra. Rubanova, N.A., et al. (1989, p.165-169, rus) **44-4530**
- Environmental protection of areas of oil and gas development. Grodzinskii, V.V., (1989, p.173-177, rus) **44-4531**
- Oil and gas industry in the Far North and its ecological protection. Zavizion, V.G., (1989, p.178-181, rus) **44-4532**
- Navigation**
Canadian arctic marine transportation. Stuart, W.J.H., et al. (1988, p.130-152, eng) **44-1122**
- Polar hydrography in the USSR. Burkov, G., et al. (1989, p.34-37, eng) **44-1716**
- Navigation by satellite in the Arctic. McMillan, J.C., (1989, 132p., eng) **44-3373**
- See *also*: Ice navigation; Subglacial navigation
- Needle ice**
See *also*: Ice needles
- Neutron probes**
Neutrino astronomy. Halzen, F., et al. (1989, p.39-51, eng) **44-2071**
- ICEMANd: microwave detection of ultra-high energy neutrinos in ice. Ralston, J.P., et al. (1989, p.52-60, eng) **44-2072**
- New ideas in South Pole experiments. Seckel, D., (1989, p.61-63, eng) **44-2073**
- Neutrons**
Estimating snow moisture reserve and soil humidity from cosmic rays. Avdiushin, S.I., et al. (1988, p.163-165, eng) **44-1105**
- New Zealand**
—**Fiordland**
Avalanche risk on walking tracks in Fiordland, New Zealand. Owens, I.F., et al. (1989, p.231-236, eng) **44-580**
- Ivory Lake**
Sedimentation in proglacial Ivory Lake, Southern Alps, New Zealand. Hicks, D.M., et al. (1990, p.26-42, eng) **44-2661**
- Torlesse Range**
Debris transport by avalanche, Torlesse Range, New Zealand. Ackroyd, P., (1986, p.1-14, eng) **44-1451**
- Nitrogen cycle**
See *also*: Nutrient cycle
- Nivation**
Periglacial forms and morphodynamics in southern Jameson Land. Schunke, E., (1986, 142p., ger) **44-484**
- Enhanced boulder weathering under late-lying snowpatches. Ballantyne, C.K., et al. (1989, p.745-750, eng) **44-3397**
- Noise (sound)**
Variability of the ambient noise field associated with the ice zone. Biggs, K.P., (1988, 112p., eng) **44-857**
- Port and ocean engineering under arctic conditions. Proceedings, Vol.2. (1988, 111p., eng) **44-860**
- Responses of migrating narwhal and beluga to icebreaker traffic at the Admiralty Inlet ice-edge. N.W.T. in 1986. Cosens, S.E., et al. (1988, p.39-54, eng) **44-861**
- Signal detection in arctic under-ice noise. Nielsen, P.A., et al. (1987, 11p., eng) **44-1063**
- Propagation of sound generated on the ice surface. Francois, R.E., et al. (1989, 5p., eng) **44-1628**
- Arctic Ocean noise generation due to pack ice kinematics and heat fluxes. Lewis, J.K., et al. (1988, p.565-581, eng) **44-1711**
- Transient underwater noise from animals and ice. Cummings, W.C., et al. (1989, 173p., eng) **44-1850**
- Studying the moisture in frozen rocks using sound methods. Tsibul'skii, V.R., et al. (1989, p.56-63, rus) **44-2153**
- Ambient noise studies in the arctic basin. Bourke, R.H., et al. (1989, p.4-6, eng) **44-3134**
- Electromagnetic noise collection in the Arctic. Scanzello, J.F., et al. (1989, p.260-265, eng) **44-3152**
- Acoustics of arctic ice floes. Pomalaza-Raez, C.A., et al. (1990, p.75-78, eng) **44-3822**
- Nomenclature**
See *also*: Terminology
- North Sea**
Late Weichselian/Devensian ice sheets in the North Sea and adjacent land areas. Nesje, A., et al. (1988, p.371-384, eng) **44-82**
- Reconstructing the dynamics of the north-west European Pleistocene ice sheets. Ehlers, J., (1990, p.71-83, eng) **44-3594**
- Northwest Passage**
Arctic data compilation and appraisal. Vol.14. Northwest Passage. Birch, J.R., et al. (1987, 300p., eng) **44-1461**
- Norway**
Variability in neoglacial moraine morphology and composition. Shakesby, R.A., (1989, p.17-29, eng) **44-106**
- R&D in arctic technology: a Norwegian outlook. Milch, S., (1989, p.59-63, eng) **44-129**
- Changes in stream hydrochemistry during spring snowmelt in Norway. Ferrier, R.C., et al. (1989, p.321-337, eng) **44-267**
- Glacial sediment and hydro-electric power. Bogen, J., (1989, p.6-11, eng) **44-538**
- Maximum avalanche run-out distance. Lied, K., et al. (1989, p.164-169, eng) **44-567**
- Snow-avalanche maps for use by the Norwegian Army. Lied, K., et al. (1989, p.170-174, eng) **44-568**
- Striations produced by subglacial drainage in Norway. McCarroll, D., et al. (1989, p.193-196, eng) **44-1544**
- Ice problems and ice research in Norway. Tesaker, E., (1989, p.233-245, eng) **44-2039**
- Arctic air pollution: a Norwegian perspective. Ottar, B., (1989, p.2349-2356, eng) **44-2250**
- Light hydrocarbons in the Norwegian Arctic. Hov, O., et al. (1989, p.2471-2480, eng) **44-2260**
- Trace element features of atmospheric aerosol in the Norwegian Arctic. Maenhaut, W., et al. (1989, p.2551-2569, eng) **44-2268**
- Development of technology for cold regions in Norway. Löset, S., (1988, p.65-87, eng) **44-3317**
- Ice control by regulation of the fresh water discharge into sea water. Gjerp, S.A., et al. (1988, p.137-145, eng) **44-3320**
- Environmental conditions on the Norwegian continental shelf Barents Sea. Bjørke, P.L., et al. (1989, var.p., eng) **44-3329**
- Avalanche accident at Vassdalen, Norway, 5 March 1986. Lied, K., (1988, p.137-150, eng) **44-3505**
- Norway ice movement evidence for Norwegian ice dome. Anundsen, K., (1990, p.99-116, eng) **44-3595**
- Glacier drainage system detected by dye-tracing experiments. Willis, I.C., et al. (1990, p.89-101, eng) **44-3727**
- Karst denudation in Norway. Lauritzen, S.E., (1990, p.157-167, eng) **44-4418**
- Vegetation of the Storbreen glacier foreland, Norway. Whittaker, R.J., (1989, p.413-433, eng) **44-4460**
- Austdalsbreen Glacier**
Glacier reaction to water level increase of glacial lake. Hooke, R.L., et al. (1989, p.113-126, eng) **44-3095**
- Austerdalsisen Glacier**
Catastrophic breakup of a calving glacier. Theakstone, W.H., (1989, p.245-253, eng) **44-2625**
- Bergsjord**
Recent glacial history and climatic change in northern Norway. Geatly, A.F., et al. (1989, p.19-30, eng) **44-906**
- Breiserdalen**
Soil development on moraine ridges in southern Norway. McCarroll, D., et al. (1989, p.31-36, eng) **44-907**
- Finnmark**
Periglacial processes in Finnmark, Norway. Meier, K.D., (1987, 298p., ger) **44-2069**
- Jostedalbreen**
Variations of outlet glaciers and climate in western Norway. Nesje, A., (1989, p.3-17, eng) **44-905**
- Jotunheimen**
Medial moraines in Jotunheimen, Norway. Vere, D.M., et al. (1989, p.276-280, eng) **44-1556**
- Leirbreen**
Deposits in a small ice-dammed lake in Norway. Donnelly, R., et al. (1989, p.581-600, eng) **44-682**

Norway (cont.)

—Okstindan

- Changes of glacial hydrology at Austre Okstindbreen, Norway, 1976-87. Theakstone, W.H., et al., 1989, p.252-256, eng. 44-584

—Spitsbergen

- Glaciation and deglaciation of Forlandsundet area, Spitsbergen. Forman, S.L., 1989, p.51-60, eng. 44-84

- Ground ice of Spitsbergen. Vtiurin, B.I., 1989, p.69-75, rus. 44-338

- Studies of Fridtjof Glacier in Spitsbergen in 1988. Glazovskii, A.F., et al., 1989, p.148-153, rus. 44-352

- Holocene glaciation and climatic change Spitsbergen, Svalbard. Werner, A., 1989, 325p., eng. 44-969

- Spitsbergen faces modernity. Iten, O., 1989, p.16-21, eng. 44-1535

- Evaluating avalanche hazards in the arctic mountain region. Zhidkov, V.A., et al., 1989, p.188-200, rus. 44-1589

- Mineralogy of glacial deposits in Spitsbergen. Stankowska, A., 1989, p.371-377, eng. 44-3055

- Denudation of glaciated and non-glaciated catchments. Kostorzewski, A., et al., 1989, p.317-367, eng. 44-3056

- Marginal zone of Hørbreen Glacier in Spitsbergen. Karczewski, A., 1989, p.371-377, eng. 44-3057

- Outwash tidal flat in Spitsbergen. Borówka, M., 1989, p.379-384, eng. 44-3058

- Sedimentation in proglacial lakes in Spitsbergen. Wojciechowski, A., 1989, p.385-399, eng. 44-3059

- Glacier margin morphology in Spitsbergen. Goner, P., et al., 1989, p.419-427, eng. 44-3060

- Water chemistry of glacial lakes in Spitsbergen. Stankowska, A., 1989, p.429-442, eng. 44-3061

- Valley natural environment in Spitsbergen. Mizgajski, A., 1989, p.443-456, eng. 44-3062

- Glacial river discharge and salinity of bay in Spitsbergen. Chojński, A., 1989, p.457-464, eng. 44-3063

- Water chemistry of glacial river in Spitsbergen. Stankowska, A., 1989, p.465-473, eng. 44-3064

- Coastal sedimentation along glacial outwash plain shorelines in northwest Spitsbergen. Héquette, A., et al., 1990, p.77-88, fre. 44-3533

- Climate record of last 6000 years in an ice core from Spitsbergen. Fujii, Y., et al., 1990, p.85-89, eng. 44-4167

—Svalbard

- Radiocarbon dating by accelerator mass spectrometry. Blake, W., Jr., 1989, p.59-74, eng. 44-109

- Subglacial meltwater discharge in a tidewater glacier environment. Pfirman, S.L., et al., 1989, p.265-281, eng. 44-218

- On the nature of Svalbard icebergs. Dowdeswell, J.A., 1989, p.224-234, eng. 44-1550

- Periglacial processes and permafrost of Svalbard. Ono, Y., et al., 1990, p.215-234, eng. 44-3066

- Northern Svalbard waters. Strömberg, J.O., 1989, p.402-426, eng. 44-3430

- Remote-sensing studies of Kvitøydjökulen, an ice cap on Kvitøya, north-east Svalbard. Bamber, J.L., et al., 1990, p.75-81, eng. 44-3725

- Lichen growth rates for the northwest coast of Spitsbergen, Svalbard. Werner, A., 1990, p.129-140, eng. 44-4046

- Last interglacial/glacial cycle on Svalbard, as seen from the Kapp Ekholm section. Mangerud, J., et al., 1990, p.63-66, eng. 44-4108

- Long-term glacier mass-balance investigations in Svalbard, 1950-88. Hagen, J.O., et al., 1990, p.102-106, eng. 44-4171

- Glaciers and climate in Svalbard. Lefauconnier, B., et al., 1990, p.148-152, eng. 44-4182

—Svartisen

- Twentieth-century glacier change at Svartisen, Norway. Theakstone, W.H., 1990, p.283-287, eng. 44-4211

Norwegian Sea

- Sediments of glacial-interglacial cycles in the Norwegian Sea. Henrich, R., et al., 1989, p.283-319, eng. 44-219

- Quaternary paleoecology and geology of the seas of northern Europe. Matishov, G.G., et al., 1989, 114p., rus. 44-1910

- Preliminary cruise report of USNS Bartlett to the Greenland Sea, 1989. Bourke, R.H., et al., 1989, 36p., eng. 44-2041

Nuclear magnetic resonance

- Water crystallization in capillary-porous media. Podenko, L.S., et al., 1989, p.36-41, rus. 44-2149

- Determining the phase composition of moisture in frozen disperse systems. Podenko, L.S., et al., 1989, p.52-56, rus. 44-2152

- Effect of organic ice-forming compounds on the freezing temperature of a water-oil emulsion. Arkharov, A.V., et al., 1989, p.1172-1174, rus. 44-2574

- Predicting unfrozen water content behavior of a soil. Black, P.B., et al., 1990, p.54-60, eng. 44-2966

- NMR study of effects of ice-forming compounds on water-oil emulsions. Arkharov, A.V., et al., 1990, p.1016-1018, eng. 44-3972

Nuclear power

- Pb-210 in air and snow near nuclear research center. Parveen, N., et al., 1988, 16p., eng. 44-959

- Atomic icebreaker *Taimyr*. 1989, p.12-15, eng. 44-1715

- Model study of a floating ice barrier. Molnár, I., 1989, p.189-198, eng. 44-2035

- Nuclear plant safety. *Sevmorput LASH/containership*. Vorob'ev, V., et al., 1989, p.26-28, eng. 44-4120

Nuclear wastes

- See *also*: Radioactive wastes

Nucleating agents

- Ice-forming capacity of anti-hail devices in a clear atmosphere. Berezhinskii, N.A., et al., 1989, p.115-121, rus. 44-875

- Using iodargyrite with bismuth thiodide for precipitation enhancement. Scott, P.T., 1987, 61p., eng. 44-1270

- X-ray analysis and ice nucleating behavior of the AgI-CuI system. Sivanesan, S., et al., 1989, p.4160-4163, eng. 44-1379

- Effect of various impurities on the ice forming efficiency of silver iodide aerosols. Bakhanova, R.A., et al., 1989, p.11-19, rus. 44-4225

- See *also*: Dry ice (trademark); Lead iodide; Silver iodide

Nucleation

- Cold tolerance of microarthropods. Cannon, R.J.C., et al., 1988, p.23-77, eng. 44-1884

- Ammonium salts as inhibitors of ice nucleating activity of bacteria. Okada, K., et al., 1990, p.549-550, eng. 44-3582

- Synthesis of AgI-AgCl-CuI solid solutions for ice nucleation studies. Sivanesan, S., et al., 1990, p.129-133, eng. 44-3796

- Redistribution of aerosol particles through scavenging by ice particles. Alheit, R.R., et al., 1990, p.870-887, eng. 44-4138

- See *also*: Artificial nucleation; Heterogeneous nucleation; Homogeneous nucleation; Two dimensional nucleation

Nucleation rate

- Nucleation on cylindrical nuclei. Knight, C.A., et al., 1987, p.599-601, eng. 44-1791

- Studies of ice nucleation by arctic aerosol on AGASP-II. Borys, R.D., 1989, p.169-185, eng. 44-2174

- Method of measuring nucleation activity of water. Bilková, E., et al., 1989, p.111-121, rus. 44-4321

Nuclei

- See *also*: Condensation nuclei; Freezing nuclei; Hygroscopic nuclei; Ice crystal nuclei; Ice nuclei; Organic nuclei; Snow crystal nuclei

Numerical analysis

- See *also*: Analysis (mathematics)

Numerical models

- See *also*: Mathematical models

Nutrient cycle

- Nitrogen fertilizer in soil during winter. Selles, F., et al., 1989, p.551-565, eng. 44-667

- Soil nitrogen changes during primary succession on a floodplain in Alaska, U.S.A. Walker, L.R., 1989, p.341-349, eng. 44-2007

- Differences in growth and nutrient use among arctic plant growth forms. Chapin, F.S., III, et al., 1989, p.73-80, eng. 44-2586

- Nitrogen in the arctic ecosystems. Grunina, L.K., et al., 1990, p.135-140, eng. 44-4112

Ocean atmosphere interactions

- See *also*: Air water interactions

Ocean bottom

- Sea ice modeling relevant to the Labrador and Newfoundland shelves. Ikeda, M., 1989, p.535-540, eng. 44-407

- Side scan sonar and sub-bottom profile survey of the eastern Chukchi Sea. Ellington, M.D., et al., 1986, 68p., eng. 44-705

- Physiography and bathymetry of the Arctic Ocean seafloor. Weber, J.R., 1989, p.797-828, eng. 44-988

- Iceberg scoring rates on the Grand Banks, Newfoundland. Lewis, C.F.M., et al., 1988, p.229-254, eng. 44-1143

- Structure/seabed interaction of the SSDC/MAT. Baker, K.A., et al., 1988, p.441-450, eng. 44-1161

- Self-burying anchor. Fan, Y.L., et al., 1988, p.459-464, eng. 44-1163

- Coefficient of friction between concrete and asphalt-mat. Takeda, H., et al., 1988, p.661-670, eng. 44-1181

- Gas hydrate formation as a special type of oceanic cryolithogenesis. Solov'ev, V.A., et al., 1989, p.115-120, rus. 44-1756

- Foundation performance of gravity base structures. McCarron, W.O., 1990, p.1-8, eng. 44-2200

- Response of a Beaufort Sea clay to monotonic and cyclic loading. McCarron, W.O., et al., 1990, p.329-336, eng. 44-2243

- Variations in ice gouge parameters related to different seabed soil types. Ticken, E.J., et al., 1990, p.337-339, eng. 44-2244

- Dynamic simulations of iceberg-seabed interactions. Baas, D.W., et al., 1989, p.137-151, eng. 44-3097

- On the spatial frequency of linear ice scars on the seabed. Gaskill, H., et al., 1988, p.107-130, eng. 44-3503

- Mineralogical analyses of Chukchi Sea sediments. Luepke, G., et al., 1989, 12p., eng. 44-3768

- Sediment transport by ice scoring. Barnes, P.W., et al., 1990, p.09-111, eng. 44-3810

- Results of an icebreaker cruise to the Northwind Ridge, Arctic Ocean Basin. Jantzi, A., 1990, p.343-345, eng. 44-4104

- Recent geodynamics and seismicity in the eastern sector of the Soviet Arctic. Imaev, V.S., et al., 1990, p.345-346, eng. 44-4105

- See *also*: Bottom sediment

Ocean currents

- Sediments of glacial-interglacial cycles in the Norwegian Sea. Henrich, R., et al., 1989, p.283-319, eng. 44-219

- Fram Strait ice flux calculations and associated arctic ice conditions. Englebrektson, R.E., et al., 1989, p.61-67, eng. 44-297

- Glaciation and other power units in the Earth's tectonics. Semenov, V.I., 1989, p.234-239, rus. 44-360

- Sea ice modeling relevant to the Labrador and Newfoundland shelves. Ikeda, M., 1989, p.535-540, eng. 44-407

- Surface layer temperature records above sea ice and open water. Hoeber, H., 1989, p.293-297, eng. 44-412

- Role of sea ice and other fresh water in the arctic circulation. Aagaard, K., et al., 1989, p.14485-14498, eng. 44-452

- Sea ice margins: a summary of physical phenomena. Muench, R.D., 1989, 51p., eng. 44-460

- Current, temperature, and depth measurements in Chukchi Sea. Hachmeister, L.E., et al., 1984, p.255-333, eng. 44-622

- Arctic halocline and deep water. Hill, J.A., 1988, 1p., eng. 44-673

- Coastal oceanography in the Beaufort Sea, summer 1985. Becker, P., et al., 1987, 314p., eng. 44-699

- Numerical study of a mesoscale eddy interaction with an ocean front. Lumpkin, R.P., 1986, 97p., eng. 44-717

- Ocean waves in the region of the Soya Warm Current. Ohshima, K.I., 1988, p.117-129, jpn. 44-736

- Arctic seas: climatology, oceanography, geology, and biology. Herman, Y., ed., 1989, 888p., eng. 44-981

- Arctic ice-ocean dynamics. Hilmer, W.D., III, 1989, p.47-91, eng. 44-983

- Climatic change and bottom water formation. Hoffert, M.I., 1989, 27p., eng. 44-1067

- Effects of time-dependent winds and ocean eddies on ice motion in a marginal ice zone. Barker, J.L., 1977, 53p., eng. 44-1082

- Wind speed, ocean currents and sea ice drift, Beaufort Sea. Kozo, T.L., 1988, p.183-200, eng. 44-1138

- Chukchi Sea ice motion 1981-82. Pritchard, R.S., et al., 1988, p.255-270, eng. 44-1144

- Arctic data compilation and appraisal. Vol.1. Beaufort Sea. Cornford, A.B., et al., 1982, 279p., eng. 44-1436

- Arctic data compilation and appraisal. Vol.6. Queen Elizabeth Is. Fissel, D.B., et al., 1983, 111p., eng. 44-1457

- Arctic data compilation and appraisal. Vol.7. Canadian Basin-Arctic Ocean. Birch, J.R., et al., 1984, 624p., eng. 44-1458

- Arctic data compilation and appraisal. Vol.12. Beaufort Sea and Amundsen Gulf. Birch, J.R., et al., 1987, 459p., eng. 44-1460

- Arctic data compilation and appraisal. Vol.14. Northwest Passage. Birch, J.R., et al., 1987, 300p., eng. 44-1461

- NOGAP B.6; Vol.1: Beaufort Sea current measurements. March-August 1987. McCullough, D., et al., 1988, 19p., eng. 44-1475

- Thermohaline circulation under ice shelf model. Hellmer, H.H., et al., 1989, p.325-336, eng. 44-1490

- Offshore drilling in the Beaufort Sea. Vol.3: ocean currents. McCullough, D., et al., 1988, 37p., eng. 44-1510

- Numerical study of topographically steered flows in the Fram Strait. McShane, D.W., 1989, 44p., eng. 44-1521

- Ross Sea data buoy project, 1986-1988. Moritz, R.E., 1988, p.78-b., eng. 44-1103

- Subsurface currents in the southeast Foss Sea. Jacobs, S., 1988, p.80-81, eng. 44-1704

- Ice eddy ambient noise. Johannessen Ø.M., et al., 1988, p.599-605, eng. 44-1713

- Nearshore and coastal circulation in the northeastern Chukchi Sea. Final report. Hachmeister, L.E., et al., 1985, p.1-104, eng. 44-1720

- Late Pliocene northern ice sheets and deep water circulation. Raymo, M.E., et al., 1989, p.413-446, eng. 44-1734

- Simple ice-ocean model for the Greenland Sea. Wood, R.G., et al., 1989, p.1865-1880, eng. 44-1735

- Beaufort Sea mesoscale circulation study—final report. Aagaard, K., et al., 1989, 114p., eng. 44-1834

- Preliminary cruise report of USNS *Bartlett* to the Greenland Sea, 1989. Bourke, R.H., et al., 1989, 36p., eng. 44-2011

- Models of ocean processes. Vinogradov, M.E., ed., 1989, 36p., rus. 44-2282

- Circulation, temperature and salinity of Bering Sea, spring 1988. Reed, R.K., et al., 1989, 13p., eng. 44-2351

- Energy-active zones: conceptual basis. Pt. 1. Mikhinov, A.E., ed. [1989, 239p., rus] **44-2380**
- Boundary layer under fast ice. Shirasawa, K., et al. [1989, p.90-102, jpn] **44-3128**
- Glacial meltwater input to the Alaska Coastal Current: evidence from oxygen isotope measurements. Kipphut, G.W., [1990, p.5177-5181, eng] **44-3277**
- Ice drift modelling for the Barents Sea. Carstens, T., et al. [1988, p.171-179, eng] **44-3321**
- Surface expressions of eddies within the ice pack. Shuchman, R.A., et al. [1990, p.3-4, eng] **44-3351**
- Ecological features of the Barents Sea. Loeng, H., [1989, p.327-365, eng] **44-3429**
- Study of barotropic instability in the Sea of Okhotsk. Ohshima, K.I., et al. [1990, p.570-584, eng] **44-3691**
- Ice-ocean eddies in the Sea of Okhotsk. Wakatsuchi, M., et al. [1990, p.585-594, eng] **44-3692**
- Causeway effects on oceanographic processes near Prudhoe Bay. Hale, D.A., et al. [1989, 50p., eng] **44-3772**
- On modeling the baroclinic adjustment of the Arctic Ocean. Hibler, W.D., III, [1990, p.247-250, eng] **44-3860**
- Interaction of an ocean eddy with a marginal ice zone ocean front. Smith, D.C., IV, et al. [1990, p.278-281, eng] **44-3864**
- Attempt to measure deep saline outflow through Barrow Canyon. Roach, A.T., et al. [1990, p.287-290, eng] **44-3866**
- Large-scale physical oceanography of polar oceans. Carmack, E.C., [1990, p.171-222, eng] **44-3978**
- Mesoscale phenomena in the polar oceans. Muench, R.D., [1990, p.223-285, eng] **44-3979**
- Studies of sea-air interaction in the North-European Basin. Alekseev, G.V., et al. [1990, p.63-75, eng] **44-4068**
- Numerical modelling of the Arctic Ocean water dynamics. Doronin, N.I.U., et al. [1990, p.76-85, eng] **44-4069**
- Numerical modelling of large-scale circulation in the North-European Basin. Semenov, G.A., [1990, p.85-87, eng] **44-4070**
- Thermohaline structure, water circulation and deep winter convection in the Greenland Sea stationary gyre. Alekseev, G.V., et al. [1990, p.87-88, eng] **44-4071**
- Shallow sea water formation in the Arctic Ocean. Kulakov, M.I.U., et al. [1990, p.89-90, eng] **44-4072**
- Climatic variations in the Barents Sea. Midtun, L., et al. [1990, p.176-191, eng] **44-4087**
- Feedback between the atmosphere, sea ice and ocean. Ikeda, M., [1990, p.120-123, eng] **44-4175**
- Model of sea ice and the upper ocean mixed layer off Labrador. Yao, T., et al. [1990, p.11,603-11,612, eng] **44-4235**
- Internal wave activity in the arctic marginal ice zone. Eckert, E.G., et al. [1990, p.9569-9574, eng] **44-4333**
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- Satellite observations of the ice cover of regions of the Okhotsk Sea. Wakatsuchi, M., et al. [1990, p.13,393-13,410, eng] **44-4544**
- See also: Tidal currents
- Ocean environments**
- Ice edge studies aboard *Polar Sea*, Vol.1, environmental data. Zahn, P.B., et al. [1987, 275p., eng] **44-881**
- Threats to the Arctic environment. Stokke, O.S., [1989, p.21-27, eng] **44-1767**
- Atmospheric delivery of organochlorines in Arctic Ocean fauna. Bidleman, T.F., et al. [1989, p.307-313, eng] **44-1933**
- Late Holocene fluctuations of the fiord glacier system in Icy Bay, Alaska, U.S.A. Porter, S.C., [1989, p.364-379, eng] **44-2009**
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- Ice drift modelling for the Barents Sea. Carstens, T., et al. [1988, p.171-179, eng] **44-3321**
- Environmental conditions on the Norwegian continental shelf Barents Sea. Bjørke, P.L., et al. [1989, var.p., eng] **44-3329**
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- Proceedings. [1989, 637p., eng] **44-3427**
- Oil pollution problem in the Baltic marine environment. Hirvi, J.P., et al. [1989, p.307-327, eng] **44-3801**
- Distribution of chlorinated hydrocarbon pesticides and PCBs in the Arctic Ocean. Hargrave, B.T., et al. [1989, 224p., eng] **44-3804**
- Conference of arctic and nordic countries on coordination of arctic research; Proceedings, Pt.1 and Pt.2. [1990, 366p. + 445p., eng] **44-4061**
- On chemical composition of atmospheric precipitation in the Arctic. Smagin, V.M., et al. [1990, p.229-235, eng] **44-4094**
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- Estimating ocean wave spectra by SAR. Tilley, D.G., [1989, p.483-491, eng] **44-402**
- Airborne SAR observations of ocean surface waves penetrating floating ice. Raney, R.K., et al. [1989, p.492-500, eng] **44-403**
- Labrador Sea wave and ice measurements, Mar. 1987. Thomas, W.L., [1988, 34p., eng] **44-698**
- Ocean waves in the region of the Soya Warm Current. Ohshima, K.I., [1988, p.117-129, jpn] **44-736**
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- Breakup of antarctic fast ice. Crocker, G.B., et al. [1989, p.61-76, eng] **44-829**
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- Ocean waves at the edge of shore fast sea ice. Fox, C., et al. [1990, p.11,629-11,639, eng] **44-4237**
- Oceanographic ships**
- Ice capable research vessels. Colbourne, D.B., [1989, 5p., eng] **44-3118**
- Oceanographic surveys**
- Oceanographic survey of the Canadian arctic archipelago, Mar. 1982. Fissel, D.B., et al. [1984, 415p., eng] **44-197**
- Oceanographic survey of the Canadian arctic archipelago, Mar. 1983. Fissel, D.B., et al. [1984, 354p., eng] **44-198**
- Sea water temperature and salinity off British Columbia. Giovando, L.F., [1985, 109p., eng] **44-199**
- Temperature and salinity in the Northwest Passage, Vol.2, 1983. Buckingham, W.R., et al. [1987, 152p., eng] **44-200**
- Temperature and salinity in the Northwest Passage, Vol.3, 1984. Buckingham, W.R., et al. [1987, 604p., eng] **44-201**
- Oceanographic and climatological atlas of Bristol Bay. Final report. Wise, J.L., et al. [1987, 192p., eng] **44-674**
- Atlas of oceanographic information for Norton Sound, Alaska. Final report. Ostrom, J.E., et al. [1987, 143p., eng] **44-679**
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- GEOSAT altimeter geophysical data record user handbook. Cheney, R.E., et al. [1987, 35p., eng] **44-1230**
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- Oceanographic surveys of Chukchi Sea, Beaufort Sea, Yukon Delta. [1988, 661p., eng] **44-1440**
- Arctic data compilation and appraisal. Vol.6. Queen Elizabeth Is. Fissel, D.B., et al. [1983, 214p., eng] **44-1457**
- Arctic data compilation and appraisal. Vol.7. Canadian Basin-Arctic Ocean. Birch, J.R., et al. [1984, 624p., eng] **44-1458**
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- Arctic data compilation and appraisal. Vol.12. Beaufort Sea and Amundsen Gulf. Birch, J.R., et al. [1987, 459p., eng] **44-1460**
- Arctic data compilation and appraisal. Vol.14. Northwest Passage. Birch, J.R., et al. [1987, 300p., eng] **44-1461**
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- Analysis and forecasting at the Naval Polar Oceanography Center. Hinsman, D.E., [1989, p.112-120, eng] **44-3142**
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- Proceedings. [1989, 637p., eng] **44-3427**
- Coordinated Eastern Arctic Experiment: SPRI sea-ice studies. Williams, R.G., et al. [1990, p.203-210, eng] **44-3959**
- Southern ocean winter mixed layer. Gordon, A.L., et al. [1990, p.11,655-11,672, eng] **44-4239**
- Oceanography**
- AMERIEZ 1986: activities on board the R/V *Melville* and USCGC *Glacier*. Sullivan, C.W., et al. [1989, p.167-169, eng] **44-20**
- Science in Antarctica, Vol.8: Oceanography. Kusunoki, K., ed. [1989, 137p., jpn] **44-210**
- Arctic program, Office of Naval Research FY 87. Obrochta, R., ed. [1989, 706p., eng] **44-472**
- Arctic sciences program summary. FY 88. Obrochta, R., ed. [1989, 130p., eng] **44-473**
- Marine meteorological and oceanographic products of the OPC (Revision 1). Feit, J.M., [1989, 89p., eng] **44-790**
- Upper ocean internal waves in the marginal ice zone of the Greenland Sea. Eckert, E.G., [1989, 77p., eng] **44-973**
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- Present climate of the Arctic Ocean and possible past and future states. Barry, R.G., [1989, p.1-46, eng] **44-982**
- Arctic ice-ocean dynamics. Hibler, W.D., III, [1989, p.47-91, eng] **44-983**
- Chemical oceanography of the Arctic Ocean. Anderson, L., et al. [1989, p.93-114, eng] **44-984**
- Beaufort Sea: chemical oceanography. Thomas, D.J., et al. [1982, 243p., eng] **44-1437**
- Arctic data compilation and appraisal. Vol.16. Queen Elizabeth Is. Thomas, D.J., et al. [1986, 125p., eng] **44-1462**
- NOGAP B.6; Vol.1: Beaufort Sea current measurements, March-August 1987. McCullough, D., et al. [1988, 19p., eng] **44-1475**
- Models of ocean processes. Vinogradov, M.E., ed. [1989, 365p., rus] **44-2282**
- Energy-active zones: conceptual basis. Pt. 1. Mikhinov, A.E., ed. [1989, 239p., rus] **44-2380**
- Beaufort Sea: causeways and coastal ocean dynamics. Niedoroda, A.W., et al. [1990, p.509-516, eng] **44-2764**
- Polar oceanography. Part A: physical science. Smith, W.O., Jr., ed. [1990, 406p., eng] **44-3974**
- Large-scale physical oceanography of polar oceans. Carmack, E.C., [1990, p.171-222, eng] **44-3978**
- Mesoscale phenomena in the polar oceans. Muench, R.D., [1990, p.223-285, eng] **44-3979**
- Marine arctic scientific geological research problems. Johnson, G.L., et al. [1990, p.317-330, eng] **44-4101**
- Arctic research of the United States, Vol.4. [1990, 120p., eng] **44-4466**
- Oceans**
- Cavitating fluid sea ice model. Flato, G.M., et al. [1990, p.239-242, eng] **44-3858**
- Present concept of the central Arctic geology and mineral resources. Gramberg, I.S., et al. [1990, p.279-285, eng] **44-4099**
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- Quaternary ice age cycles controlled by biogeochemical cycling in the ocean. Shaffer, G., [1990, p.127-143, eng] **44-4415**
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Oceans (cont.)

- Basin, the ice, the Champlain Sea. Gadd, N.R., 1988, p.15-24, eng 44-4451
- History of the northwestern arm of the Champlain Sea. Barnett, P.J., 1988, p.25-36, eng 44-4452
- Ice-proximal deposits of the Champlain Sea at South Gloucester, near Ottawa, Canada. Rust, B.R., 1988, p.37-45, eng 44-4453
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- Arctic research of the United States, Vol.4. 1990, 120p, eng 44-4466
- Offshore drilling**
- Ocean drilling in Prydz Bay and Kerguelen Plateau. Sakai, H., 1988, p.21-26, jpn 44-382
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- Arctic industrial activities, Vol.2: seismic exploration. Sackman, T., et al., 1985, 181p, eng 44-1507
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- Offshore drilling in the Beaufort Sea, Vol.3: ocean currents. McCullough, D., et al., 1988, 37p, eng 44-1510
- Conference on offshore mechanics and arctic engineering, 9th, 1990, 339p, eng 44-2199
- Karluk ice island. Bugno, W., et al., 1990, p.9-17, eng 44-2201
- Application of local area network technology in an engineering environment. Powell, A.D., et al., 1990, p.19-23, eng 44-2202
- Exploration drilling and production in the Barents Sea. Løset, S., et al., 1990, p.25-30, eng 44-2203
- Nonlinear response of undrained soil under unsymmetric loading. Prasad, K.S.R., et al., 1990, p.67-74, eng 44-2208
- Offshore placer drilling technology: a case study from Nome, Alaska. Bronston, M.A., 1990, p.26-31, eng 44-2382
- Ice—the major challenge for petroleum exploitation in the Barents Sea. Jørgensen, T.S., 1988, p.181-194, eng 44-3322
- Evacuation and survival from offshore drilling and production units in the Bering, Chukchi, and Beaufort seas. Final report, Aug. 1984-Oct. 1985. Zahn, P.B., et al., 1987, var.p., eng 44-3331
- Ice cutters for mobility of offshore drilling structures. Slocum, R.W., 1984, p.N/1-N/9, eng 44-3462
- Planning and execution of a 500 m corehole through offshore permafrost. Ruffel, J.P., et al., 1990, p.271-282, eng 44-3672
- Offshore structures**
- Calculating ice distribution in the Azov Sea. Taran, B.M., 1989, p.138-146, rus 44-179
- Principal directions of ice study for oil fields development in ice infested waters. Zaitsev, I.U.V., 1983, 12p, eng 44-190
- Concrete-steel composite structures. Kouhi, J., et al., 1989, 174p, fin 44-464
- Corrosion protection of arctic offshore structures. Final report. Sackinger, W.M., et al., 1985, 183p, eng 44-855
- Proceedings, Vol.2: Offshore mechanics. 1989, 767p, eng 44-1112
- Proceedings, Vol.3: Materials technology. 1989, 739p, eng 44-1115
- Durability of coated steel in sea ice regions. Katoh, H., et al., 1989, p.213-220, eng 44-1116
- Proceedings of the Conference on Port and Ocean Engineering, 1987. 1988, 683p, eng 44-1123
- Ice mechanics at intermediate strain rate. Blair, S.C., 1988, p.1-9, eng 44-1124
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- Improving the design of ice-resistant platforms in the Bohai Gulf. Li, T.K., et al., 1988, p.345-349, eng 44-1152
- Wave-driven growler impact on platform columns. Spring, W., 1988, p.351-362, eng 44-1153
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- Failure of ice sheets under transverse loads. Wierzbicki, T., et al., 1988, p.369-380, eng 44-1155
- Pilot experiment to measure arctic pack-ice driving forces. Crossdale, K.R., et al., 1988, p.381-395, eng 44-1156
- Probabilistic ice formation encounter and load analysis. Brown, T.G., et al., 1988, p.397-408, eng 44-1157
- Ice loads on a rigid structure with a compliant foundation. Frederking, R.M.W., et al., 1988, p.409-418, eng 44-1158
- Bearing capacity of the foundations of offshore structures. Sekiguchi, K., 1988, p.419-429, eng 44-1159
- Slope protection for gravel islands, Beaufort Sea. Hayley, D.W., et al., 1988, p.431-439, eng 44-1160
- Structure/seabed interaction of the SSDC/MAT. Baker, K.A., et al., 1988, p.441-450, eng 44-1161
- High-capacity moorings and anchors for floating arctic platforms. Gerwick, B.C., 1988, p.451-457, eng 44-1162
- Self-burying anchor. Fan, Y.L., et al., 1988, p.459-464, eng 44-1163
- Bond between coated steel surfaces and sea spray ice. Sackinger, W.M., et al., 1988, p.565-570, eng 44-1173
- Sea spray icing on marine structures. Vefsnmo, S., et al., 1988, p.571-579, eng 44-1174
- Design and use of floating docks in lake ice conditions. Wortley, C.A., 1988, p.617-626, eng 44-1178
- Construction of the port of Nome, Alaska. Campion, D., et al., 1988, p.627-632, eng 44-1179
- Design of AIDA seaport, Chukchi Sea shore, Alaska. Guillermo, E.C., et al., 1988, p.633-660, eng 44-1180
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- Experimental study on the resistance to sliding of breakwaters. Takeda, H., et al., 1988, p.671-681, eng 44-1182
- High-strength steel plates for arctic offshore structures. Kaji, H., et al., 1988, p.73-76, jpn 44-1311
- Nonlinear dynamic analysis of caisson-type offshore structures. Souly, I.R., 1990, n.p., eng 44-1520
- Load test of a composite ice-resisting wall. Hassinen, P., et al., 1989, 59p, eng 44-1597
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- Ice research and engineering in Finland. Mänttinen, M., 1989, p.134-142, eng 44-2030
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- Ice problems and ice research in Norway. Tesaker, E., 1989, p.233-245, eng 44-2039
- Conference on offshore mechanics and arctic engineering, 9th, 1990, 339p, eng 44-2199
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- Application of local area network technology in an engineering environment. Powell, A.D., et al., 1990, p.19-23, eng 44-2202
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- Finite element calculations of ice pressure on rigid structures. Derradji-Aouat, A., et al., 1990, p.75-81, eng 44-2209
- Analysis of stress distributions in an ice floe. Frederking, R.M.W., et al., 1990, p.83-87, eng 44-2210
- Tests of ice crushing on a flexible structure. Singh, S.K., et al., 1990, p.89-94, eng 44-2211
- Ice structure interface model for crushing with extrusion. Marcellus, R.W., et al., 1990, p.95-101, eng 44-2212
- Creep buckling analysis of a floating ice sheet moving against a structure. Luk, C.H., 1990, p.103-110, eng 44-2213
- Analysis of structural response to dynamic ice action. Kärnä, T., et al., 1990, p.135-142, eng 44-2216
- Field measurement of pack ice stresses. Comfort, G., et al., 1990, p.177-181, eng 44-2222
- Creep and relaxation behavior of floating ice structures. Kenny, J., et al., 1990, p.183-193, eng 44-2223
- Dynamic analysis of a floating ice sheet undergoing vertical indentation. McGilvary, W.R., et al., 1990, p.195-203, eng 44-2224
- Wave-induced bergy bit motion near a floating platform. Mak, L.M., et al., 1990, p.205-215, eng 44-2225
- Failure stress and modulus of ice island ice under compression. Jeffries, M.O., et al., 1990, p.223-229, eng 44-2227
- Discussion of recent work to develop a more realistic pressure-area model for ice. Winkler, M.M., et al., 1990, p.231-235, eng 44-2228
- Compressive properties of sea ice in a harbour in Liaodong Gulf. Li, Z.J., et al., 1990, p.259-263, eng 44-2233
- Design criteria of level ice compressive strength. Meng, G.L., et al., 1990, p.289-292, eng 44-2237
- Measurement of sea ice thickness using electromagnetic induction. Holladay, J.S., et al., 1990, p.309-315, eng 44-2240
- Response of a Beaufort Sea clay to monotonic and cyclic loading. McCarron, W.O., et al., 1990, p.329-336, eng 44-2243
- On the interaction of an ice sheet and a vertical structure. Kato, K., 1985, p.144-149, jpn 44-2306
- Ice forces on vertical cylindrical structures. Nakazawa, N., et al., 1985, p.150-155, jpn 44-2307
- Total ice force on a cluster of cylindrical piles. Takeuchi, T., et al., 1985, p.156-161, jpn 44-2308
- Ice forces acting on structures with inclined surfaces. Inoue, K., 1985, p.162-167, jpn 44-2309
- Adfreeze bond strength between sea ice and various materials. Nakazawa, N., et al., 1985, p.172-177, jpn 44-2311
- Concrete abrasion due to a movement of ice sheet. Asai, Y., et al., 1985, p.190-195, jpn 44-2314
- Proceedings, 1986, 666p, jpn 44-2445
- Ice pressure distribution acting on vertical structures. Takeuchi, T., et al., 1986, p.160-165, jpn 44-2458
- Vertical ice forces and changes in water level. Tsuchiya, M., et al., 1986, p.166-171, jpn 44-2459
- Vertical ice forces and changes in water level. Tsuchiya, M., et al., 1986, p.172-177, jpn 44-2460
- Design of an observation tower in the Sea of Okhotsk. Yoshida, A., et al., 1986, p.178-184, jpn 44-2461
- Construction of mass concrete structures in icy seas. Inoue, K., 1986, p.491-496, jpn 44-2488
- Frost and sea water resistance of concrete structures in frozen sea areas. Ayuta, K., 1986, p.501-506, jpn 44-2490
- Resistance to frost damage of concrete exposed at coastal zone. Takada, N., et al., 1986, p.507-512, jpn 44-2491
- Freeze thaw action on offshore concrete structures. Tsutsui, Y., et al., 1986, p.513-518, jpn 44-2492
- Proceedings, 1987, 503p, jpn 44-2526
- Design of a concrete structure in icy waters. Ohmae, H., et al., 1987, p.311-317, jpn 44-2544
- Adfreeze bond strength between sea ice and anti-corrosion steel. Ohtsuki, F., et al., 1987, p.346-352, jpn 44-2550
- Abrasion of steel piles by sea ice. Sato, K., et al., 1987, p.353-359, jpn 44-2551
- Design requirement for ice forces. Wong, T.T., et al., 1989, p.524-535, eng 44-2642
- Proceedings, 1988, 676p, jpn 44-2666
- Abrasion of concrete structures due to a movement of sea ice sheet. Itoh, Y., et al., 1988, p.297-305, jpn 44-2697
- Adfreeze bond strength between ice and various materials. Sakai, H., et al., 1988, p.306-313, jpn 44-2698
- Arctic offshore pipeline installation and operation. Masterson, D.M., et al., 1989, p.405-413, eng 44-2745
- Improvement in arctic submarine pipeline design. Blower, S., et al., 1989, p.433-440, eng 44-2746
- Beaufort Sea causeways and coastal ocean dynamics. Niedoroda, A.W., et al., 1990, p.509-516, eng 44-2764
- Proceedings, 1989, 645p, jpn 44-2859
- Outline of the design ice force estimating system. Kato, K., 1989, p.376-381, jpn 44-2902
- Abrasion of concrete by ice that contains sand. Itoh, Y., et al., 1989, p.432-436, jpn 44-2910
- Dynamic response of narrow structures to ice crushing. Kärnä, T., et al., 1989, p.173-187, eng 44-3100
- Ice-structure interaction testing: a bibliography. Lau, M., 1989, 62p, eng 44-3109
- Icing/de-icing problems. Jørgensen, T.S., 1987, p.45-61, eng 44-3312
- Evaluation of state-of-the-art drilling platform ice accretion models. Brown, R.D., et al., 1988, p.131-136, eng 44-3319
- Ice—the major challenge for petroleum exploitation in the Barents Sea. Jørgensen, T.S., 1988, p.181-194, eng 44-3322
- Impact of ice on petroleum exploration in the Barents Sea. Løset, S., et al., 1988, p.195-206, eng 44-3323
- Abrasion of concrete by ice in arctic sea structures. Huovinen, S., 1989, p.39-49, eng 44-3340
- Jacket structures in the arctic and subarctic seas. Kimura, T., et al., 1988, p.1-6, eng 44-3347
- Conference on Icebreaking and Related Technologies, 3rd, Calgary, 1984, 1984, var.p., eng 44-3449
- Eleven months in the installation of an arctic mobile drilling structure. Johansson, B.M., et al., 1984, p.A/1-A/19, eng 44-3450
- Multi-modal ice-management system. Aker, C.M., 1984, p.G/1-G/16, eng 44-3456
- Mobile offshore units operating in ice-infested waters. Nassim, M.A., et al., 1984, p.H/1-H/12, eng 44-3457

- Experience with a new type of model ice. Enkvist, E., 1984, p.11-15, eng. 44-3458
- Ice cutters for mobility of offshore drilling structures. Slocum, R.W., 1984, p.N/1-N/9, eng. 44-3462
- Conference on Ships and Marine Systems in Cold Regions, 4th, 1990, 1990, var.p., eng. 44-3464
- Probabilistic analysis of summer impact loads on arctic offshore structures. Tunik, A.L., et al., 1990, p.N/1-N/10, eng. 44-3476
- Abrasion of concrete by ice in arctic sea structures. Huovinen, S., 1990, 110p. + append., eng. 44-3770
- Causeway effects on oceanographic processes near Prudhoe Bay. Hale, D.A., et al., 1989, 50p., eng. 44-3772
- Analysis of the composite ice wall. Corder, P.R., et al., 1990, p.21-39, eng. 44-3798
- Class A prediction of arctic caisson performance—discussion and reply. Sladen, J.A., et al., 1990, p.299-302, eng. 44-4281
- Sea ice observation tower in the Okhotsk Sea. Oshima, M., 1989, p.1266-1280, eng. 44-4429
- Ice forces measured by two-dimensional ice force panels. Wessels, E., et al., 1989, p.1428-1439, eng. 44-4440
- Ice loads on multi-pile supports. Afanas'ev, V.P., 1990, p.28-29, rus. 44-4481
- Probabilistic evaluation of design iceberg collision. McTaggart, K.A., et al., 1990, p.85-101, eng. 44-4489
- See *also*: Floating structures; Hydraulic structures
- Oil**
- See *also*: Crude oil
- Oil industry**
- See *also*: Petroleum industry
- Oil products**
- See *also*: Petroleum products
- Oil recovery**
- Oil recovery systems in ice. Smrke, D.J., et al., 1984, p.26-35, eng. 44-2431
- Planning and execution of a 500 m corehole through offshore permafrost. Ruffel, J.P., et al., 1990, p.271-282, eng. 44-3672
- Oil spills in arctic regions. Sandkvist, J., 1989, p.1281-1296, eng. 44-4430
- Oil spills**
- Contingency plans for oil spills in the Great Lakes. Cundlich, E.R., et al., 1986, 273p., eng. 44-838
- Arctic oil spill response guide for the Alaskan Beaufort Sea. Final report, 1988, 334p., eng. 44-844
- Chukchi Sea coast and oil spills. Robilliard, G.A., et al., 1989, p.127-633, eng. 44-879
- Oil spill combat in the arctic: an alternative approach. Sveum, P., 1987, 27p., eng. 44-1072
- Biodegradation of oil spill on shoreline. Sveum, P., 1987, 21p., eng. 44-1073
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- On the freezing of sprayed sea water to produce artificial sea ice. Sackinger, W.M., et al., 1988, p.581-590, eng. 44-1175
- Weathering of oil in sea ice. 1988, 465p., eng. 44-1442
- Proceedings. 1989, 202p., eng. 44-1444
- Environmental impact of oil spills in polar waters. 1989, 19p., eng. 44-1827
- Oil in the sea: inputs, fates, and effects. 1985, 601p., eng. 44-1880
- Biological impact of oil spills in Great Lakes under ice conditions. Baca, B.J., et al., 1986, 63p., eng. 44-1887
- Oil spill from the tanker *Kurdistan* off Cape Breton I., 1979. Dawe, B.R., et al., 1981, 31p., eng. 44-1909
- Proceedings. 1988, 514p., eng. 44-1954
- Modelling of oil spills in snow. Belore, R.C., et al., 1988, p.9-29, eng. 44-1955
- Skimming system for oil spills in broken ice. Shafer, R.V., et al., 1988, p.205-208, eng. 44-1956
- Diesel fuel spill at Warwick Lake, Ontario in winter. Burns, R.C., 1988, p.209-220, eng. 44-1957
- Environmental hazards of oil and gas development at Barrow, AK. Turett, J.C., ed., 1984, 229p., eng. 44-2107
- Aromatic hydrocarbons in the Alaskan marine environment. Anderson, J.W., et al., 1986, 123p., eng. 44-2108
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- Oil recovery systems in ice. Smrke, D.J., et al., 1984, p.26-35, eng. 44-2431
- Simulation of oil slicks in rivers and lakes. Shen, H.T., et al., 1990, 29p., eng. 44-3736
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- Catalogue of oil properties. Bobra, M.A., et al., 1986, 284p. + append., eng. 44-3961
- Oil spills in leads: tank tests and modelling. Buist, I.A., et al., 1987, 58p. + append., eng. 44-3963
- Alternative strategies for oil spill combat in arctic waters. Sveum, P., 1990, p.237-250, eng. 44-4096
- Simulated oil spill from a pipeline in the Subarctic. Kershaw, G.P., 1990, p.176-183, eng. 44-4286
- Oil spills in arctic regions. Sandkvist, J., 1989, p.1281-1296, eng. 44-4430
- Oil storage**
- Marketer constructs indoor bulk storage site for lubricants. 1989, p.27-28, eng. 44-3250
- Oil transportation**
- See *also*: Petroleum transportation
- Oil wells**
- Prediction of the effect of a flare on permafrost. Rubtsov, N.A., et al., 1986, p.33-37, eng. 44-1729
- Okhotsk Sea**
- Variation in ice concentration off Hokkaido Island. Aota, M., et al., 1988, p.161-175, jpn. 44-737
- Ice floes off Okhotsk coast of Hokkaido, 1989. Aota, M., et al., 1989, p.71-82, jpn. 44-3045
- Effect of the equatorial Pacific Ocean on interannual variability in the Okhotsk Sea ice. Tachibana, Y., et al., 1989, p.71-77, jpn. 44-3126
- Attempt to interpret sea-ice features from the MOS-1 passive microwave data. Ono, N., 1989, p.103-109, jpn. 44-3129
- Impact of the Siberian high and Aleutian low on sea ice cover. Parkinson, C.L., 1990, p.226-229, eng. 44-4199
- Sea ice observation tower in the Okhotsk Sea. Oshima, M., 1989, p.1266-1280, eng. 44-4429
- Satellite observations of the ice cover of regions of the Okhotsk Sea. Wakasuchi, M., et al., 1990, p.13,393-13,410, eng. 44-4544
- Operating costs**
- See *also*: Cost analysis
- Optical filters**
- Microphotographs of snow crystals by means of the special-effect filters. Kikuchi, K., 1988, p.170-173, jpn. 44-2679
- Optical phenomena**
- AMERIEZ 1986: photoadaptation of phytoplankton and light limitation of primary production. SooHoo, J.B., et al., 1989, p.185-187, eng. 44-28
- Correlating ice crystal types with halo types. Tape, W., 1989, p.262-264, eng. 44-660
- Optical properties**
- Spectral bidirectional reflectance of snow. Dozier, J., et al., 1988, p.87-92, eng. 44-419
- Aerial measurements of optical depth of arctic haze. Dutton, E.G., et al., 1989, p.71-79, eng. 44-2168
- See *also*: Albedo; Atmospheric attenuation; Attenuation; Ice crystal optics; Ice optics; Light transmission; Reflectivity; Snow optics; Transmissivity
- Organic nuclei**
- Effect of ice nucleation-active xylem-residing bacteria on frost tolerance. Gagné, S., et al., 1989, p.63-73, fre. 44-397
- Ice-nucleating bacteria. Obata, H., 1988, p.143-152, jpn. 44-1366
- Bacterial nucleation of ice in plant leaves. Hirano, S.S., et al., 1986, p.730-738, eng. 44-1821
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- International Glaciological Society: fifty years of progress. Wood, P., 1986, 128p., eng. 44-465
- Arctic research of the United States, Vol.3. 1989, 71p., eng. 44-471
- United States arctic research plan biennial revision: 1990-1991. Brown, J., ed., 1989, 72p., eng. 44-746
- 50 years of the first anti-avalanche service of the USSR. Zuzin, I.U.L., 1989, p.6-14, rus. 44-1563
- Britain in the Arctic: a directory of activities and interests. 1990, 112p., eng. 44-3227
- Introduction to Lanzhou Institute of Glaciology and Geocryology, Academia Sinica. 1988, 17p., eng. 44-3868
- Orientation**
- Polar wander of an ice shell on Europa. Ojakangas, G.W., et al., 1989, p.242-270, eng. 44-1952
- Seasonal recession of Mars' south polar cap in 1986. James, P.B., et al., 1990, p.1337-1341, eng. 44-2285
- Models for the orientation of hydrometeors. McCormick, G.C., 1989, p.1301-1309, eng. 44-3102
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- Morphology of optically anisotropic agarose hydrogel prepared by directional freezing. Yokoyama, F., et al., 1990, p.552-558, eng. 44-4498
- See *also*: Slope orientation
- Origin**
- Origin of natural gas hydrates on the North Slope of Alaska. Collett, T.S., et al., 1989, p.3-9, eng. 44-3802
- Developmental history of arctic marine ecosystems. Golikov, A.N., et al., 1990, p.196-206, eng. 44-4115
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- Orographic effects**
- See *also*: Topographic effects
- Oscillations**
- Periods of eigenoscillations in the sea level of the Arctic Ocean. Poliakov, I.V., et al., 1988, p.91-100, rus. 44-99
- See *also*: Glacier oscillation; Vibration
- Outwash**
- Organic carbon accumulation in soils near Burroughs Glacier. James, L.A., 1988, p.50-70, eng. 44-49
- Forest transitions and buried glacial outwash. Dodge, S.L., 1989, p.137-144, eng. 44-2619
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- Glacial outwash plain revisited. Jonsson, J., 1989, p.199-209, eng. 44-2622
- Outwash tidal flat in Spitsbergen. Borówka, M., 1989, p.379-384, eng. 44-2958
- Coastal sedimentation along glacial outwash plain shorelines in northwest Spitsbergen. Héquette, A., et al., 1990, p.77-88, fre. 44-3533
- Ice-proximal deposits of the Champlain Sea at South Gloucester, near Ottawa, Canada. Rust, B.R., 1988, p.37-45, eng. 44-4453
- Champlain Sea subwash fan at St. Lazare, Quebec. Burbidge, G.H., et al., 1988, p.47-61, eng. 44-4454
- Glaciomarine fan deposition in the Champlain Sea. Sharpe, D.R., 1988, p.63-82, eng. 44-4455
- Oxygen**
- Arctic data compilation and appraisal. Vol.16. Queen Elizabeth Is. Thomas, D.J., et al., 1986, 125p., eng. 44-1462
- Arctic data inventory and appraisal. Vol.18. Canada Basin. Thomas, D.J., et al., 1986, 109p., eng. 44-1474
- On the transfer of stratospheric ozone into the troposphere near the North Pole. Oltmans, S.J., et al., 1989, p.245-253, eng. 44-2178
- Relationship between ozone and filterable bromine in the high Arctic. Oltmans, S.J., et al., 1989, p.2431-2441, eng. 44-2256
- Boundary layer ozone depletion during AGASP-II. Mickle, R.E., et al., 1989, p.2443-2449, eng. 44-2257
- Martian polar cap: radiative effects of ozone, clouds, and airborne dust. Lindner, B.E., 1990, p.1367-1379, eng. 44-2288
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- Stable isotope precipitation model. Fisher, D.A., 1990, p.65-71, eng. 44-4164
- Ice core 1400 y oxygen isotope history. Groote, P.M., et al., 1990, p.94-98, eng. 44-4169
- Pack ice**
- AMERIEZ 1986: activities on board the R/V *Melville* and USCGC *Glacier*. Sullivan, C.W., et al., 1989, p.167-169, eng. 44-20
- AMERIEZ 1986: responses of under-ice fauna to low temperature and stress. Aarset, A.V., 1989, p.170-171, eng. 44-21
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- AMERIEZ 1986: acoustic assessment of krill (*Euphausia superba*, Dana). Macaulay, M.C., et al., 1989, p.176-178, eng. 44-25
- Drift ice in the Soya Strait. Akagawa, M., 1985, p.77-78, jpn. 44-60
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- Fram Strait ice flux calculations and associated arctic ice conditions. Englebreton, R.E., et al., 1989, p.61-67, eng. 44-297
- Ice pack rigidity and mobility characteristics. Lewis, J.K., et al., 1989, p.69-77, eng. 44-298
- East antarctic sea ice zone: ice characteristics and drift. Allison, I., 1989, p.103-115, eng. 44-301
- Seasonal variations of sea ice motion in the Transpolar Drift Stream. Serreze, M.C., et al., 1989, p.811-814, eng. 44-363
- Overview of LIMEX'87 ice observations. Carney, F.D., et al., 1989, p.468-482, eng. 44-401
- Seasonal ice margin data for Beaufort and Chukchi Seas. Carney, F.D., et al., 1989, p.541-551, eng. 44-408

Pack ice (cont.)

- Distribution of pack ice off Okhotsk Sea coast of Hokkaido. Aota, M., et al, 1988, p.35-64, jpn 44-459
- Ocean waves in the region of the Soya Warm Current. Ohshima, K.I., 1988, p.117-129, jpn 44-736
- Sea ice concentration and extent and atmosphere-ice interactions. Maslanik, J.A., 1988, 209p., eng 44-971
- MCRIM: (Multi-Category Regional Ice Model) version 1.1; user's manual. Loevas, S.M., 1987, 170p., eng 44-1071
- Offshore winds and pack ice movement episodes north of Ellesmere Island. Ahlén, K., et al, 1988, p.271-286, eng 44-1145
- Pilot experiment to measure arctic pack-ice driving forces. Croasdale, K.R., et al, 1988, p.381-395, eng 44-1156
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- Ground data for area IV. Leppäranta, M., 1988, p.103-106, eng 44-1429
- Availability of Geosat data during the BEPERS Pilot Study. Ulander, L.M.H., 1988, p.161-165, eng 44-1434
- Rough transform technique for sea ice imagery. Fetterer, F.M., et al, 1989, 4p., eng 44-1523
- Weddell Sea and Antarctic Peninsula biota in pack ice. Garrison, D.L., et al, 1989, p.211-219, eng 44-1864
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- Field measurement of pack ice stresses. Comfort, G., et al, 1990, p.177-181, eng 44-2222
- Surface expressions of eddies within the ice pack. Shuchman, R.A., et al, 1990, p.3-4, eng 44-3351
- Snow cover effects on antarctic sea ice thickness. Ackley, S.F., et al, 1990, p.16-21, eng 44-3810
- Nutrient concentrations in antarctic pack ice during the austral winter. Garrison, D.L., et al, 1990, p.35-40, eng 44-3814
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- Meteorology of polar oceans. Brown, R.A., 1990, p.1-46, eng 44-3975
- Beaufort and Chukchi Sea ice motion part 2—onset of large scale Chukchi Sea ice breakout. Reimer, R.W., et al, 1979, 92p., eng 44-4139
- Paints**
See (also): Protective coatings
- Pakistan**
—Biafo Glacier
Hydrology of the Biafo Glacier, Karakoram range, Himalaya Mts. Hewitt, K., et al, 1989, p.103-108, eng 44-556
—Himalaya Mountains
Damage of glacier-related landslides, Karakoram, Himalaya. MacDonald, K.I., 1989, p.185-188, eng 44-571
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—Karakoram Range
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Snow accumulation determined by glacioclimatology. Karakoram, Pakistan. Wake, C.P., 1989, p.279-284, eng 44-590
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Younger Dryas-Preboreal moraines and deglaciation in southwestern Värmland, Sweden. Lundqvist, J., 1988, p.301-316, eng 44-80
Deglaciation pattern indicated by the ice-margin formations in Northern Karelia, eastern Finland. Eronen, M., et al, 1988, p.317-327, eng 44-81
Late Weichselian/Devensian ice sheets in the North Sea and adjacent land areas. Nesje, A., et al, 1988, p.371-384, eng 44-82
Glaciation and deglaciation of Forlandsundet area, Spitsbergen. Forman, S.L., 1989, p.51-60, eng 44-84
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- Proxy climate record from glacioclimatic study in Victoria Land. Mayewski, P.A., et al, 1988, p.68-69, eng 44-1699
- Isotopic oxygen-18 results from blue-ice areas. Grootes, P.M., et al, 1988, p.70, eng 44-1700
- Biogenic particles in antarctic ice cores and the source of antarctic dust. Burckle, L.H., et al, 1988, p.71-72, eng 44-1701
- Pleistocene evolution: Northern Hemisphere ice sheets and North Atlantic Ocean. Ruddiman, W.F., et al, 1989, p.353-412, eng 44-1733
- Late Pliocene northern ice sheets and deep water circulation. Raymo, M.E., et al, 1989, p.413-446, eng 44-1734
- Sedimentation processes in the transition from interglacial to glacial conditions. Mel'nikov, V.I., 1989, p.108-114, rus 44-1755
- Numerical simulation of glacial periods. Verbitskii, M.A., et al, 1989, p.1336-1341, rus 44-1757
- Recent and older glaciation in the Ardon River valley. Gerasimov, V.A., 1989, p.55-66, rus 44-1782
- Quaternary paleogeology and geology of the seas of northern Europe. Matishov, G.G., et al, 1989, 114p., rus 44-1910
- Paleoclimates and glaciation during the Pleistocene. Velichko, A.A., ed, 1989, 247p., rus 44-1911
- Glacial meltwater inflow into the Gulf of Mexico. Kvasov, D.D., 1989, p.28-33, rus 44-1912
- Landscape-climatic changes in the late glacial period in USSR territory. Khotinskii, N.A., 1989, p.39-47, rus 44-1913
- Changes in climate and vegetation during the Shiklov interglacial. Elvicheva, I.A.K., 1989, p.66-70, rus 44-1914
- Correlation of Pleistocene glaciations with transgressions of the Black and Caspian seas. Zubakov, V.A., 1989, p.105-110, rus 44-1915
- Glaciations in the east European region of the USSR. Velichko, A.A., et al, 1989, p.137-146, rus 44-1916
- Glaciations and transgressions on the northeastern Baltic shield. Evzerov, V.I.A., et al, 1989, p.147-154, rus 44-1917
- Indicators of Late Cenozoic ice sheets and paleoclimates in the Ukraine. Veklich, M.F., 1989, p.167-173, rus 44-1920
- Pleistocene glaciations of northeastern USSR. Glushkova, O.I., et al, 1989, p.224-231, rus 44-1926
- Pleistocene glaciations in the upper and middle Kolyma drainage basin. Voskresenskii, S.S., et al, 1989, p.232-238, rus 44-1927
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- Petrographic correlation in paleogeological studies. Khazaradze, R.D., 1989, p.62-65, rus 44-2049
- Tropical climate variability recorded in ice cores of Peru. Thompson, L.G., et al, 1989, p.15-31, eng 44-2106
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- Middle Wisconsinan climate fluctuations recorded in central Alaskan loess. Beget, J., 1990, p.3-13, eng 44-3536
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- US global ice core research program West Antarctica and beyond. Grootes, P.M., et al, 1989, 32p., eng 44-3738
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- Proceedings, 1990, 377p., eng 44-4148
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- Global ice and climate changes models. Budd, W.F., et al, 1990, p.23-27, eng 44-4155
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- Two dimensional paleoclimatic ice sheet model. Esch, M.B., et al, 1990, p.55-57, eng 44-4162
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- Palsen**
- See *falsio*: Frost mounds
- Palynology**
- Climate and vegetation during the Shklov interglacial near the central Pechora according to palynological data. Konovalenko, L.A., 1985, p.108-114, rus 44-483
- Pollen from permafrost, SW Yukon territory. Wang, X.C., 1989, p.99-112, chi 44-2405
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- See *falsio*: Pollen
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- See *falsio*: Radiant heating
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- See *falsio*: Ice crystal collision
- Particle size distribution**
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- Operating envelopes of particle sizing instrumentation used for icing research. Final report. Hovenac, E.A., 1987, 16p, eng 44-1099
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- Parties**
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- Proceedings. 1989, 285p, eng 44-2249
- Characterization of particles collected by aerial survey over Alaska. Sheridan, P.J., 1989, p.2371-2386, eng 44-2252
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- See *falsio*: Aerosols
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- See *falsio*: Polygonal topography; Soil patterns
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- Pavement heaving**
- See *falsio*: Frost heave
- Pavement icing**
- See *falsio*: Road icing
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- Iowa Department of Transportation weigh-in-motion. McCall, B., 1989, p.286-295, eng 44-1664
- SHRP prototype procedures for calibrating falling weight deflectometers. Richter, C.A., et al, 1989, p.296-303, eng 44-1665
- Iowa Department of Transportation pavement instrumentation. Dankbar, R., 1989, p.304-307, eng 44-1666
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- Minnesota cold regions pavement test facility. Newcomb, D.E., et al, 1989, p.360-369, eng 44-1671
- Full scale pavement test international joint research. Dumont, A.G., et al, 1989, p.370-375, eng 44-1672
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- Experience of pavement instrumentation at TRRL. Addis, R.R., 1989, p.385-393, eng 44-1674
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- See *falsio*: Concrete pavements
- Pest**
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- Engineering geological mapping of permafrost peat. Kashperuk, P.I., et al., 1989, p.83-89, rus **44-3707**
- Pedogenesis**
See *also*: Soil formation
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See *also*: Soil science
- Pellets**
See *also*: Snow pellets
- Penetration**
Deep ice penetrator. Rychnovsky, R., 1988, p.323-336, eng **44-1150**
- Ice penetrating arctic oceanographic buoy (AOB). Selsor, H.D., 1989, p.101-103, eng **44-3140**
- Penetration of floating ice sheets with cylindrical indentors. Sodhi, D.S., et al., 1989, p.104, eng **44-3141**
- Cost-effective ice penetrator. Thomas, E.V., et al., 1989, p.141-149, eng **44-3145**
- Ice penetrator development program. Ferrario, M.T., 1989, p.186-222, eng **44-3148**
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- See *also*: Projectile penetration
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- Bering Sea data collection aboard USCGC Polar Star, Feb-Mar. 1984, Vol.2. Geisel, F.A., et al., 1984, 115p., eng **44-1215**
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- See *also*: Cold weather performance
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- See *also*: Glacial deposits
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See *falsoy*: Permafrost beneath structures
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See *falsoy*: Subsea permafrost
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- Permafrost control**
See *falsoy*: Permafrost preservation
- Permafrost dating**
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- Permafrost formation**
See *falsoy*: Permafrost origin
- Permafrost heat transfer**
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Geocryological and geothermal features of the deposits near Kumtor. Ermolin, E.D., et al. [1989, p.31-40, rus] **44-3232**
- Permafrost preservation**
Impact of vehicles on snow, soil and vegetation. Zhidkov, V.A., et al. [1989, p.124-131, rus] **44-346**
Radial adfreezing of permafrost in the basement of buildings. Maksimov, G.N., et al. [1989, p.491-496, eng] **44-925**
Food storage in artificial permafrost. Ryokai, K., et al. [1987, p.1-9, jpn] **44-1347**
Norman Wells to Zama oil pipeline buried in permafrost. Pilon, J., et al. [1989, 331p., eng] **44-1496**
Raised and unventilated pile foundation in permafrost. Li, Y.W., et al. [1989, p.167-171, chi] **44-2411**
Impact of vehicles on snow, soil, and vegetation cover in the North. Zhidkov, V.A., et al. [1989, p.131-141, eng] **44-2441**
Reclamation of cryogenic soils in the USSR. Uglanov, I.N., [1989, p.48-51, rus] **44-3553**
Experience with foundations stabilized with thermosyphons. Zarling, J.P., et al. [1990, p.365-370, eng] **44-3683**
Problems of the technology and organization of environmental protection during the construction of oil and gas industry facilities in the arctic regions. Review. Shishov, V.N., et al. [1990, Var p., rus] **44-3990**
Permafrost preservation in bridge foundations. Oparin, A.A., et al. [1990, p.121-129, rus] **44-4310**

Permafrost preservation (cont.)

Permafrost preservation and disturbance of moss and snow covers. Zabolotnik, S.I., (1990, p.157-167, rus) **44-4315**

Cooling device for artificial ground freezing. Kharitonov, A.N., et al. (1990, p.168-174, rus) **44-4316**

All-Union conference on ecological impact of oil and gas industry, 1988. (1989, 195p., rus) **44-4505**

Oil and gas engineering in relation to the ecology in the North. Novikov, I.P., et al. (1989, p.26-39, rus) **44-4509**

Gas industry and ecological safety in permafrost. Antonov-Druzhinin, V.P., et al. (1989, p.39-49, rus) **44-4510**

Geocryological aspects of geology of gas deposits in Central Yakutia. Gravis, G.F., et al. (1989, p.57-65, rus) **44-4512**

Ecological protection of pipeline routes, European North. Akul'shina, N.P., et al. (1989, p.65-72, rus) **44-4513**

Environmental protection of permafrost during oil transport. Garriss, N.A., et al. (1989, p.85-91, rus) **44-4516**

Permafrost preservation during construction of oil and gas facilities. Masalkin, S.D., et al. (1989, p.134-139, rus) **44-4525**

Underground disposal of waste from gas-production facilities. Andrievskii, V.S., et al. (1989, p.143-151, rus) **44-4527**

Environmental protection of the gas-deposit areas of the Subarctic. Prokhorenkov, V.D., et al. (1989, p.160-165, rus) **44-4529**

Oil and gas industry in the Far North and its ecological protection. Zavitkov, V.G., (1989, p.178-181, rus) **44-4532**

See *also*: Permafrost control

Permafrost samplers

Geophysics of palsa plateaus in northern Quebec. Gahé, E., et al. (1987, p.33-46, fre) **44-896**

Permafrost structure

Spatial facies of a group of pingo remnants on the southeast Frisian till plateau (the Netherlands). Van der Meulen, S., (1988, p.61-74, eng) **44-47**

Periglacial forms and morphodynamics in southern Jameson Land. Schunke, E., (1986, 142p., ger) **44-484**

Permafrost in northern Quebec: state of knowledge and research needs. Allard, M., et al. (1987, p.141-152, fre) **44-900**

Permafrost formation in Huola River basin, North Da Hingan Ling. Guo, D.X., et al. (1989, p.215-222, chi) **44-2416**

Periglacial processes and permafrost of Svalbard. Ono, Y., et al. (1990, p.215-234, eng) **44-3066**

Geophysical soundings of permafrost on Seymour I. Fournier, H.G., et al. (1990, p.301-307, eng) **44-3301**

Mapping of ice content and layer of permafrost. Vasil'chuk, I.U.K., et al. (1989, p.89-96, rus) **44-3708**

Analyses of permafrost cores from an alpine rock glacier. Haeblerli, W., ed. (1990, 38p., eng) **44-4131**

Permafrost thermal properties

Effect of pile foundations on the temperature regime of permafrost. Smirnov, V.N., et al. (1989, p.71-73, rus) **44-97**

Subsurface temperature predictions for hydropower developments. Christensen, M.J., et al. (1988, p.25-34, eng) **44-233**

Temperature and depth of permafrost on the arctic slope of Alaska. Eichenbruch, A.H., et al. (1988, p.645-656, eng) **44-392**

Permafrost distribution and Quaternary history of Mackenzie Delta. Judge, A.S., (1986, p.41-45, eng) **44-781**

Thermal conductivity of permafrost soils. Gavril'ev, R.J., (1989, p.701-706, eng) **44-1833**

Practical instructions for calculating stationary soil temperature fields. Feldman, G.M., et al. (1988, 51p., rus) **44-1938**

Thermal stabilization of permafrost with thermosyphons. Zarling, J.P., et al. (1990, p.323-328, eng) **44-2242**

Seasonal active layer in the basin of Huola River, China. Wang, J.C., et al. (1989, p.203-214, chi) **44-2415**

Permafrost formation in Huola River basin, North Da Hingan Ling. Guo, D.X., et al. (1989, p.215-222, chi) **44-2416**

Determining the average annual temperature of permafrost. Khristalev, L.N., et al. (1989, p.102-107, rus) **44-2519**

Modelling climatic influences on permafrost at a boreal forest site. Riseborough, D.W., (1985, 172p., eng) **44-2953**

Geocryological and geothermal features of the deposits near Kumtor. Ermolin, E.D., et al. (1989, p.31-40, rus) **44-3232**

Hydrocarbon gas in gas-hydrate interval, North Slope. Collett, T.S., et al. (1990, p.279-287, eng) **44-3361**

Permafrost temperatures in the Arctic National Wildlife Refuge. Osterkamp, T.E., (1988, p.191-193, eng) **44-3509**

Ground temperatures and moisture changes, Canadian Cordillera. Harris, S.A., (1990, p.151-157, eng) **44-3657**

Permafrost thermal regime in northern Quebec. Lévesque, R., et al. (1990, p.207-213, fre) **44-3664**

Soil and pipeline temperatures in discontinuous permafrost. Burgess, M.M., et al. (1990, p.291-297, eng) **44-3674**

Tiwa settlement around a building on warm ice-rich permafrost. Hanna, A.J., et al. (1990, p.419-424, eng) **44-3690**

Glacier and permafrost signals of 20th-century warming. Haeblerli, W., (1990, p.99-101, eng) **44-4170**

Temperature regime of permafrost under bridge piers. Oparin, A.A., (1990, p.106-113, rus) **44-4308**

Temperature regime of permafrost in railroad embankments. Minsalov, G.P., (1990, p.146-153, rus) **44-4313**

Environmental protection of permafrost during oil transport. Garriss, N.A., et al. (1989, p.85-91, rus) **44-4516**

Effect of construction of foundations on permafrost thermal regime. Gorbacheva, V.M., et al. (1989, p.92-98, rus) **44-4517**

Efficient use of gas production without environmental impact. Zemchikhin, V.E., et al. (1989, p.101-107, rus) **44-4515**

Ecological effects of the Yamburg-Tsentr pipelines. Satarov, V.N., (1989, p.123-129, rus) **44-4523**

Permafrost thickness

Geological and geotechnical conditions of the Beaufort Sea coastal zone, arctic Canada. Kurfurst, P.J., et al. (1989, p.121-129, eng) **44-46**

Geophysics of palsa plateaus in northern Quebec. Gahé, E., et al. (1987, p.33-46, fre) **44-896**

Permafrost in northern Quebec: state of knowledge and research needs. Allard, M., et al. (1987, p.141-152, fre) **44-900**

Structural inhomogeneities of the Martian cryolithosphere. Kuz'min, R.O., et al. (1989, p.121-133, eng) **44-1679**

Geophysical mapping of permafrost in Ungava, Quebec. Seguin, M.K., et al. (1989, p.201-232, eng) **44-2129**

Permafrost formation in Huola River basin, North Da Hingan Ling. Guo, D.X., et al. (1989, p.215-222, chi) **44-2416**

Geophysical soundings of permafrost on Seymour I. Fournier, H.G., et al. (1990, p.301-307, eng) **44-3301**

Models for permafrost thickness variation. Gosink, J.P., et al. (1990, p.191-198, eng) **44-3662**

Permafrost transformation

Tundra ponds of the Yukon Delta, Alaska, and their macroinvertebrate communities. Maciolek, J.A., (1989, p.193-206, eng) **44-86**

Estimate of permafrost sensitivity to change in global thermal regime. Anisimov, O.A., (1989, p.65-69, eng) **44-1561**

Cold regions engineering: climatic warming concerns for Alaska. Esch, D.C., et al. (1990, p.6-14, eng) **44-3385**

Potential responses of permafrost to climatic change. Smith, M., (1990, p.29-37, eng) **44-3388**

Thermal regime of permafrost in Alaska and predicted global warming. Osterkamp, T.E., et al. (1990, p.38-42, eng) **44-3389**

Fluvial outbursts and cryokarstic processes on Mars and in Siberia. Costard, F., (1990, p.97-104, fre) **44-3534**

Norman Wells pipeline monitoring: geothermal observations, 1984-1987. Burgess, M.M., et al. (1990, p.233-244, eng) **44-3627**

Permafrost weathering

Chemical interaction in the system "water-ice-rock". Ivanov, A.V., (1989, p.75-80, rus) **44-339**

Environmental processes and vegetation patterns in boreal forests. Bonan, G.B., (1989, 297p., eng) **44-966**

Cryogenic weathering of gold-quartz veins in the Baykal Mountains. Taishev, T.T., (1990, p.297-302, eng) **44-3362**

Deformation of river banks in Yamal. Arc, F.E., et al. (1990, p.67-73, rus) **44-4303**

Permeability

Effect of early freezing on permeability of cement paste. Bantia, N., et al. (1989, p.119-132, eng) **44-686**

Physical processes in peat bogs. Lishvan, I.I., et al. (1989, 284p., rus) **44-1034**

Gas and water permeability of concrete for reactor buildings. Mills, R.H., (1986, 77p., eng) **44-1059**

In situ permeability measurements. Moulton, L.K., (1989, p.63-73, eng) **44-1643**

Effect of freeze thaw activity on the soil physics. Benoit, G.R., et al. (1990, p.45-53, eng) **44-2965**

Effect of freeze-thaw cycles on soils. Chamberlain, E., et al. (1990, p.145-155, eng) **44-2977**

Permeability of frozen soils under trees. Rybakova, N.A., (1990, p.106-112, eng) **44-4057**

See *also*: Seepage, Snow permeability

Peru

Tropical climate variability recorded in ice cores of Peru. Thompson, L.G., et al. (1989, p.15-31, eng) **44-2106**

Glacier fluctuations and climate in the Cordillera Blanca, Peru. Kaser, G., et al. (1990, p.136-140, eng) **44-4179**

—Central Andes

Stratified slope deposits in the Central Andes of Peru. Francou, B., (1988, p.47-76, fre) **44-691**

Frost action on the slopes of the central Andes in Peru. Francou, B., (1989, p.97-112, fre) **44-1032**

—Quechua ice cap

Pre-Incan agricultural activity recorded in dust layers in two tropical ice caps. Thompson, L.G., et al. (1988, p.763-765, eng) **44-287**

Petroleum

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Petroleum industry

Principal directions of ice study for oil fields development in ice infested waters. Zaitsev, I.U.V., (1982, 12p., eng) **44-190**

Moscow's campaign to cut deficit jolts Soviet petroleum operations. (1989, p.17-20, eng) **44-1685**

Prediction of the effect of a flare on permafrost. Rubtsov, N.A., et al. (1986, p.33-37, eng) **44-1729**

Arctic and Antarctic development. Byford, A.N., (1990, p.39-49, eng) **44-2205**

All-Union Conference on the Ecology of Oil and Gas Complexes, 1st. Nadya, Oct. 3-5, 1988. Summaries. (1988, 241p., rus) **44-3326**

Arctic Petroleum Review, Summer 1988, Vol. 11, No. 1 (issue 28). (1988, 8p., eng) **44-3916**

Arctic Petroleum Review, Winter 1988-89, Vol. 11, No. 2 (issue 29). (1989, 8p., eng) **44-3917**

Arctic Petroleum Review, Summer 1989, Vol. 12, No. 1 (issue 30). (1989, 8p., eng) **44-3918**

Arctic Petroleum Review, Winter 1990, Vol. 12, No. 2 (issue 31). (1990, 8p., eng) **44-3919**

Problems of the technology and organization of environmental protection during the construction of oil and gas industry facilities in the arctic regions. Review. Shishov, V.N., et al. (1990, Var. p., rus) **44-3990**

Elastomers for subzero oilfield use require careful property compromises. Pugh, T.L., (1990, p.12-16, eng) **44-4132**

Efficient use of gas condensers and crude oil in the Yakutsk ASSR. L'vova, Z.M., et al. (1989, p.72-78, rus) **44-4514**

Engineering effects on tundra in oil-production regions. Tentukov, M.P., (1989, p.78-84, rus) **44-4515**

Petroleum products

Catalogue of oil properties. Bobra, M.A., et al. (1986, 284p. + appendix, eng) **44-3961**

Petroleum transportation

Possibilities for hydraulic transport of high-viscosity oil in the North. Kagan, I.A.M., et al. (1989, p.36-37, rus) **44-325**

Environmental protection of permafrost during oil transport. Garriss, N.A., et al. (1989, p.85-91, rus) **44-4516**

Phase transformations

Theory of freezing: the inhomogeneous Ornstein-Zernike equation. McCoy, J.D., et al. (1989, p.87-100, eng) **44-262**

Constitutive theory for snow as a continuous multiphase mixture. Adams, E.E., et al. (1989, p.553-572, eng) **44-274**

High-density structures and phase transition in an ionic model of H₂O ice. Demontis, P., et al. (1989, p.2716-2718, eng) **44-288**

Non-equilibrium behaviour of isotherm freezing of water in lysozyme. Zhang, J.Z., (1989, p.1375-1380, eng) **44-389**

Effects of subcooling on melting on a vertical wall. Okada, M., et al. (1988, p.56-68, eng) **44-688**

Problems with the segregation potential theory. Van Gassen, W., et al. (1989, p.95-97, eng) **44-833**

Parameterization of phase change of water in a mesoscale model. Levkov, L., et al. (1987, 45p., eng) **44-889**

Solidification interface shape in cooling fluid flow. Hasegawa, E., et al. (1987, p.32-48, eng) **44-1337**

Melting around a horizontal cylinder imbedded in a frozen porous medium. Okada, M., et al. (1987, p.40-54, eng) **44-1339**

Using ice as a phase change material. Utaka, Y., et al. (1988, p.117-131, jpn) **44-1370**

Solidification of saline water with convection and radiation at the boundary. Kehtarnavaz, H., et al. (1988, p.197-203, eng) **44-1416**

Interface movement during serial freezing and thawing of a binary solution. Diller, K.R., et al. (1988, p.243-251, eng) **44-1420**

Effect of percolation component on heat transfer in thawing soils. Zviagin, V.V., (1987, p.305-309, eng) **44-1516**

Transformation of low-density to high-density amorphous ice. Floriano, M.A., et al. (1989, p.187-192, eng) **44-1936**

Density-functional theory for the freezing of water. Ding, K., et al. (1987, p.1698-1701, eng) **44-2115**

On optimal heating and cooling strategies for melting and freezing. Gordon, J.M., et al. (1990, p.81-84, eng) **44-2134**

Effect of reagents and container walls on the phase equilibrium of freezing solutions. Strigotskii, S.V., (1989, p.29-35, rus) **44-2148**

Determining the phase composition of moisture in frozen disperse systems. Podenko, I.S., et al. (1989, p.52-56, rus) **44-2152**

Phase composition of water in freezing and frozen soils. Kondakov, V.V., et al. (1989, p.21-27, rus) **44-2517**

- Thermodynamic properties of a propane hydrate near hydrate-ice transition. Buleiko, V.M., et al. [1989, p.663-666, rus] **44-2610**
- Heat capacity and glass transition of ethylene oxide clathrate hydrate. Yamamoto, O., et al. [1990, p.45-58, eng] **44-2774**
- Polyhedral clathrate hydrates of a strong base. Mootz, D., et al. [1990, p.139-157, eng] **44-2777**
- On the front-tracking scheme for phase-change problems. Askar, H.G., et al. [1989, p.507-513, eng] **44-3248**
- Melting of ice-aluminum balls system. Chelliah, S., et al. [1990, p.222-231, eng] **44-3249**
- Solidification of a binary solution on a cold isothermal surface. Braga, S.L., et al. [1990, p.745-754, eng] **44-3600**
- Determination of the crystal structure of ice XI. Howe, R., et al. [1989, p.4450-4453, eng] **44-3619**
- Phase changes in aqueous solutions. Aguirre-Puente, J., et al. [1990, p.61-68, fre] **44-3644**
- Analysis of melting in the presence of natural convection in the melt region. Sparrow, E.M., et al. [1977, p.520-526, eng] **44-3749**
- Contribution to the theory of melting. Carmesin, H.O., et al. [1990, p.4349-4357, eng] **44-3787**
- Fast implicit finite-difference method for the analysis of phase change problems. Voller, V.R., [1990, p.155-169, eng] **44-3797**
- Phase transition of ice Ih-XI. Minagawa, I., [1990, p.1676-1685, eng] **44-3971**
- Fluid mechanics of solidification. Huppert, H.E., [1990, p.209-240, eng] **44-4245**
- Studies in freezing of water and aqueous solutions. Pühringer, J., et al. [1989, p.1394-1417, eng] **44-4438**
- Study of water saturated porous media in the presence of convection. Chelliah, S., [1988, 196p., eng] **44-4499**
- See *also*: Solid phases
- Phosphorus cycle**
- See *also*: Nutrient cycle
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- Relationship between ozone and filterable bromine in the high Arctic. Oltmans, S.J., et al. [1989, p.2431-2441, eng] **44-2256**
- Photogrammetric surveys**
- Cartographic modeling of snow avalanche path location within Glacier National Park, Montana. Walsh, S.J., et al. [1990, p.615-621, eng] **44-4472**
- Photogrammetry**
- Mapping snow cover with satellite imagery. Holroyd, E.W., III, et al. [1989, p.59-68, eng] **44-505**
- Remote sensing of global snowpack energy and mass balance. Benson, C.S., [1989, 11p., eng] **44-714**
- Aerial photogrammetry of snow depth on roofs. Sakurai, S., et al. [1986, p.79-81, jpn] **44-2448**
- Measurement of snow depth on roofs by photogrammetry. Sakurai, S., et al. [1987, p.163-167, jpn] **44-2534**
- Photogrammetry of snow depth on roofs (Pt.4). Sakurai, S., et al. [1988, p.147-151, jpn] **44-2675**
- Photogrammetry of snow depth on roofs (Pt.4). Sakurai, S., et al. [1989, p.557-560, jpn] **44-2915**
- Photographic equipment**
- See *also*: Stereoscopic cameras
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- Sequential flash for photographing trajectories of saltating particles. Bird, K.G., et al. [1989, p.130-133, eng] **44-514**
- Photography**
- Aerial photography in BEPERS Pilot Study. Kempainen, H., et al. [1988, p.107-117, eng] **44-1430**
- Internal cracking and brittle fracture of compressed ice. Schulson, E.M., et al. [1989, p.378-382, eng] **44-1899**
- See *also*: Infrared photography; Oblique photography; Radar photography; Spaceborne photography; Stereophotography
- Photointerpretation**
- Sea ice interpretation on satellite radar images. Bushuev, A.V., et al. [1989, p.359-370, eng] **44-181**
- Comparing sea ice photographs taken from airplanes and from satellites. Aleksandrov, V.I., et al. [1989, p.391-396, eng] **44-184**
- Radar maps of the Arctic and Antarctic using data from the Kosmos-1500 satellite and preliminary results of their analysis. Burtsev, A.I., et al. [1989, p.434-451, eng] **44-185**
- Kosmos-1500 satellite side-looking radar. Kalmykov, A.I., et al. [1989, p.471-485, eng] **44-186**
- Interpreting satellite imagery. Conte, P., [1989, p.58-59, eng] **44-273**
- Structural inhomogeneities of the Martian cryolithosphere. Kuz'min, R.O., et al. [1989, p.121-133, eng] **44-1679**
- Airphoto analysis of winter seismic disturbance in northeastern Alaska. Reynolds, M.K., et al. [1989, p.362-367, eng] **44-1935**
- Mass balance studies of the Miflungkat Glacier, Eastern Greenland. Hasholt, B., [1988, p.82-85, eng] **44-2580**
- Periglacial form group of southwestern Denmark. Svensson, H., [1984, p.25-34, eng] **44-2640**
- Ice island detection and characterization with airborne synthetic aperture radar. Jeffries, M.O., et al. [1990, p.5371-5377, eng] **44-3279**
- See *also*: Geobotanical interpretation
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- Miranda: color and albedo variations from Voyager photometry. Hillier, J., et al. [1989, p.314-335, eng] **44-3344**
- Albedo dichotomy of Rhea: Hapke analysis of Voyager photometry. Verbiscer, A.J., et al. [1989, p.336-353, eng] **44-3345**
- Photosynthesis**
- Rate of photosynthesis in phytoplankton under fast ice. Satoh, H., et al. [1985, p.201, jpn] **44-62**
- Physiology of plants in a cold arid climate. Efimov, M.V., [1988, 159p., rus] **44-90**
- Primary production, chlorophyll, light, and nutrients beneath the arctic sea ice. Andersen, O.G.N., [1989, p.147-191, eng] **44-985**
- Response of algal growth to light irradiance under sea ice. Grossi, S.M., [1985, 324p., eng] **44-1479**
- Freezing effects on terrestrial algae and cyanobacteria. Davey, M.C., [1989, p.29-36, eng] **44-1798**
- Physical properties**
- Rock glacier dynamics in the Tian Shan Mountains. Cui, Z.J., et al. [1989, p.1286-1291, eng] **44-494**
- Experimental studies on a powder-snow avalanche. Kawada, K., et al. [1989, p.129-134, eng] **44-561**
- Physical processes in peat bogs. Lishtvan, I.I., et al. [1989, 284p., rus] **44-1034**
- Dendritic growth of an elliptical paraboloid with forced convection in the melt. Ananish, R., et al. [1989, p.575-593, eng] **44-1872**
- Stream development in Glacier Bay National Park, Alaska, U.S.A. Sidle, R.C., et al. [1989, p.350-363, eng] **44-2008**
- Density-functional theory of freezing for quantum systems: the Wigner crystallization. Senatore, G., et al. [1990, p.303-306, eng] **44-2121**
- Anthropogenic aerosols and gases in the lower troposphere at Alert, Canada in April 1986. Barrie, L.A., et al. [1989, p.101-127, eng] **44-2170**
- Characterization of particles collected by aerial survey over Alaska. Sheridan, P.J., [1989, p.2371-2386, eng] **44-2252**
- Lacustrine sedimentary record of ice-dammed Neoglacial Lake Alesk. Schmok, J.P., et al. [1989, p.2092-2105, eng] **44-2273**
- Drumlin physical dimensions as a function of subglacial processes. Piotrowski, J.A., [1989, p.429-441, eng] **44-2279**
- Simulation of planar instabilities during solidification. Sullivan, J.M., Jr., et al. [1987, p.81-111, eng] **44-2280**
- Stereological characterization of dry alpine snow for microwave remote sensing. Davis, R.E., et al. [1989, p.245-251, eng] **44-2598**
- Controlled geotextiles for erosion and freeze protection in water-based heating and cooling systems. Born, D.W., [1989, p.969-975, eng] **44-3034**
- Prediction of freezing rates in solids of arbitrary shape. Cleland, D.J., et al. [1984, p.6-13, eng] **44-3046**
- Ice island field station—new features of Canadian Polar Margin. Hobson, G., [1989, p.833, 838-839, eng] **44-3081**
- Phase transformations of water in hardened cement paste—a low-temperature DSC investigation. Beddoe, R.E., et al. [1990, p.236-242, eng] **44-3367**
- New water potential including polarization. Cieplak, P., et al. [1990, p.6755-6760, eng] **44-3593**
- Physics of alloys of titanium and zirconium at low temperatures. Briukhanov, A.A., et al. [1990, p.47-50, rus] **44-4348**
- Physical and mechanical model of cold brittleness. Meshkov, I.U.I.A., [1990, p.141-146, rus] **44-4368**
- Determination of low-temperature strengthening of aluminum alloys. Stepanov, G.A., et al. [1990, p.229-233, rus] **44-4388**
- Crack resistance of steels using physical parameters of viscosity. Il'rovskikh, V.V., et al. [1990, p.257-261, rus] **44-4394**
- See *also*: Atmospheric physics; Frozen ground physics; Ice physics; Permafrost physics; Snow physics; Soil physics
- Physiological effects**
- Winter habitats of salmon and trout. Calkins, D.J., [1989, 9p., eng] **44-1483**
- Work scheduling on Canadian Coast Guard ships: physiological and psychological impacts. Boulard, R., et al. [1989, 17p., eng] **44-2835**
- Physiology**
- See *also*: Plant physiology
- Piers**
- On frost damage of seashore concrete structure. Ayuta, K., et al. [1985, p.184-189, jpn] **44-2313**
- Link across "Storebælt": ice forces on the piers of the western bridge. Tryde, P., [1989, p.1202-1209, eng] **44-4426**
- Ice force measurements on a bridge pier in a small river. Sodhi, D.S., et al. [1989, p.1419-1427, eng] **44-4439**
- See *also*: Docks; Wharves
- Pile extraction**
- Prevention of frost action on pile foundations. Sheng, H.F., [1989, p.44-52, chi] **44-649**
- Experimental studies on reducing methods of uplift force to a steel pipe. Nakagawa, S., et al. [1989, p.565-566, eng] **44-937**
- Bearing capacity of ice floes and interaction with piles. Oshima, T., [1985, p.130-132, jpn] **44-2303**
- Ice force on vertical cylindrical structures. Nakazawa, N., et al. [1985, p.150-155, jpn] **44-2307**
- Total ice force on a cluster of cylindrical piles. Takeuchi, T., et al. [1985, p.156-161, jpn] **44-2308**
- Pile structures**
- Prevention of frost action on pile foundations. Sheng, H.F., [1989, p.44-52, chi] **44-649**
- Raised and unventilated pile foundation in permafrost. Li, Y.W., et al. [1989, p.167-171, chi] **44-2411**
- Ice loads on multi-pile supports. Afanas'ev, V.P., [1990, p.28-29, rus] **44-4481**
- Piles**
- Design and construction of drill piles in thawing permafrost. Rastegarev, I.K., ed. [1988, 31p., rus] **44-192**
- Interaction between ice field and a system of cylindrical piles. Matkevich, D.G., et al. [1988, p.140-174, eng] **44-1868**
- Finite element simulation of behavior of laterally loaded piles in permafrost. Foriero, A., et al. [1990, p.266-284, eng] **44-2402**
- Building structures on swelling clayey soils. Sorochan, E.A., [1989, 309p., rus] **44-2404**
- Streamline solution for rigid laterally loaded piles in permafrost. Foriero, A., et al. [1989, p.568-574, eng] **44-2643**
- Backfill property effects on the capacity of adfreeze pipe piles. Sego, D.C., et al. [1989, p.718-725, eng] **44-2645**
- Effect of climatic warming on pile creep in permafrost. Nixon, J.F., [1990, p.67-73, eng] **44-3392**
- Factors affecting the adfreeze bond of piles in permafrost. Ladanyi, B., et al. [1990, p.327-334, eng] **44-3678**
- Seasonal and climatic warming effects on pile creep in permafrost. Nixon, J.F., [1990, p.335-340, eng] **44-3679**
- Thread bar pile for permafrost. Holubec, I., [1990, p.341-348, eng] **44-3680**
- Curing and strength characteristics of cold setting Cement Fondu grout. Biggar, K.W., et al. [1990, p.349-356, eng] **44-3681**
- Bearing strength of piles in frozen ground. Asmolov, V.A., [1990, p.10-14, rus] **44-4293**
- Effect of frost-heave forces of soils on the bearing capacity of pyramidal piles. Bakholdin, B.V., et al. [1990, p.243-248, eng] **44-4419**
- See *also*: Concrete piles
- Pingos**
- Spatial facies of a group of pingo remnants on the southeast Frisian till plateau (the Netherlands). Van der Meulen, S., [1988, p.61-74, eng] **44-47**
- Tritium analysis of ground ice in permafrost. Wang, S.L., et al. [1989, p.53-59, chi] **44-650**
- Engineering and geocryological conditions in high mountains of Tien Shan. Chaus, A.K., [1989, p.62-66, rus] **44-3235**
- See *also*: Frost mounds; Hummocks
- Pipe flow**
- Freezing in curved pipes with flow. Ichimiya, K., [1985, p.125-130, jpn] **44-1328**
- Ice-bond structure effects on freezing of flowing water in a pipe. Ichimiya, K., [1989, p.27-30, eng] **44-1338**
- Solidification in developing pipe flows. Wei, S.S., et al. [1988, p.225-232, eng] **44-1413**
- Freezing heat-transfer characteristics in a bent pipe. Tago, M., et al. [1988, p.215-224, eng] **44-1418**
- Pipe laying**
- History of the first pipeline in the Arctic. Brown, R.J., [1990, p.165-172, eng] **44-2079**
- Arctic offshore pipeline installation and operation. Masterson, D.M., et al. [1989, p.405-413, eng] **44-2745**
- Ecological problems during construction of main pipelines. Vantik, V.K., et al. [1989, p.118-123, rus] **44-4522**
- Pipeline freezing**
- Artificial freezing for shaft sinking. Ma, Y.M., et al. [1989, p.20-33, chi] **44-647**
- Water and sewer service connections in permafrost areas of the Northwest Territories. Wilson, C.E., et al. [1989, p.188-196, eng] **44-1027**
- Laminar flow heat transfer in a tube with freezing. Hirata, T., et al. [1988, p.3506-3511, jpn] **44-1279**
- Freezing in curved pipes with flow. Ichimiya, K., [1985, p.125-130, jpn] **44-1328**
- Fracture of pipes due to freezing of water enclosed inside. Oiwake, S., et al. [1985, p.149-154, jpn] **44-1329**
- Melting of ice around a horizontal circular cylinder. Hattori, M., et al. [1986, p.193-196, jpn] **44-1346**
- Study of freezing behavior in a pipe with water flow. Inaba, H., et al. [1987, p.141-149, jpn] **44-1348**
- Cold weather design of plumbing systems. Frankel, M., [1987, p.27, eng] **44-2587**

Pipeline freezing (cont.)

- Cold weather design of plumbing systems. Pt. 2 Frankel, M., (1988, p.40-55, eng) **44-2588**
 Effect of convection on plug formation during cryogenic pipe freezing Bulton, M.J., et al. (1989, p.121-126, eng) **44-3700**

Pipeline insulation

- Interaction of insulated pipe with frozen soil Lantskil, P.A., (1989, p.74-80, eng) **44-1088**
 Double pipe ensures reliable insulation of offshore pipelines Braschi, R., et al. (1988, p.59-67, eng) **44-2590**

Pipelines

- Characteristics of the interaction of pipelines with frozen ground Baglati, R.D., et al. (1989, p.37-39, rus) **44-95**
 Establishment of *Salix alaxensis* on a gravel pad in arctic Alaska Bishop, S.C., et al. (1989, p.575-583, eng) **44-321**
 Possibilities for hydraulic transport of high-viscosity oil in the North Kagan, I.A.M., et al. (1989, p.36-37, rus) **44-325**
 Ground thermal conductivity effect on a pipeline system Sobolev, V.G., (1989, p.103-106, rus) **44-372**
 To protect the environment of the Far North and build safe pipelines Krasulin, I.D., et al. (1989, p.20-23, rus) **44-383**
 Pipeline route selection in an iceberg-scoured seabed Clark, J.I., et al. (1989, p.51-67, eng) **44-681**
 Cathodic protection for pipelines crossing the Mackenzie River Wiskel, B.J., et al. (1989, p.15-19, eng) **44-1870**
 Proceedings, Vol. 5 (1990, 198p., eng) **44-2077**
 Copper-bearing steel for arctic pipelines Tamehiro, H., et al. (1990, p.13-20, eng) **44-2078**
 History of the first pipeline in the Arctic Brown, R.J., (1990, p.165-172, eng) **44-2079**
 Ice scour models Been, K., et al. (1990, p.179-188, eng) **44-2081**
 Technology of building underwater pipelines in arctic regions Kamyshev, M.A., (1990, p.23-25, rus) **44-2658**
 Arctic offshore pipeline installation and operation Masterston, D.M., et al. (1989, p.205-213, eng) **44-2745**
 Improvement in arctic submarine pipeline design Blower, S., et al. (1989, p.433-440, eng) **44-2746**
 On the spatial frequency of linear ice scour on the seabed Gaskill, H., et al. (1988, p.107-130, eng) **44-3503**
 Soil and pipeline temperatures in discontinuous permafrost Burgess, M.M., et al. (1990, p.291-297, eng) **44-3674**
 Geotechnical aspects of northern gas pipeline design Nixon, J.F., et al. (1990, p.299-307, eng) **44-3675**
 Pipeline construction in permafrost regions Spiridonov, V.V., (1990, p.25-31, rus) **44-4295**
 Selection of pipeline routes in the Vyngapur River Basin Nekrasov, I.A., et al. (1990, p.55-60, rus) **44-4301**
 Calculation of temperature fields in low-temperature pipelines Zvereva, T.V., et al. (1990, p.101-106, rus) **44-4359**
 Oil and gas industry in tundra and ecological safety Marut, I.I., et al. (1989, p.49-57, rus) **44-4511**
 Ecological protection of pipeline routes, European North Akashin, N.P., et al. (1989, p.65-72, rus) **44-4513**
 Environmental protection of permafrost during oil transport Garriss, N.A., et al. (1989, p.85-91, rus) **44-4516**
 Development of preventive methods against soil erosion in pipeline areas Babin, L.A., et al. (1989, p.129-133, rus) **44-4524**
 See *also* Gas pipelines; Hot oil lines; Suspended pipelines; Underground pipelines; Water pipelines
- Pipes (tubes)**
 Freezing heat transfer in pipes with 180 degree bends Fukusako, S., et al. (1988, p.87-103, eng) **44-689**
 Solidification blockage of laminar flow at the 90 degree bend of a pipe Chida, K., et al. (1989, p.83-92, eng) **44-690**
 Polybutylene pipe freeze-thaw reliability testing Farrington, R.B., (1987, 7p., eng) **44-1210**
 Flow and heat transfer in an inclined, closed tube thermosyphon Lock, G.S.H., et al. (1988, p.205-213, eng) **44-1417**
 Production and storage of ice for cooling buildings Wubben, E.A., et al. (1989, p.338-344, eng) **44-1525**
 Investigation into the post-stable behavior of a tube array in cross-flow Lever, J.H., et al. (1989, p.457-465, eng) **44-1536**
 Cold climate effects on the properties of polyester wound plastic Gerasimov, A.A., et al. (1989, p.653-658, eng) **44-1871**
 Copper-bearing steel for arctic pipelines Tamehiro, H., et al. (1990, p.13-20, eng) **44-2078**
 Ice lens orientation around a chilled buried pipe Smith, S.L., et al. (1990, p.83-87, eng) **44-3667**
 Stress-strain state in cylindrical pipes at low temperatures Il'evich, V.N., (1990, p.253-257, rus) **44-4393**
 Heat transfer from a tube immersed in a fluidized bed with frosting Terkeshi, K., et al. (1990, p.73-91, eng) **44-4470**
 See *also* Heat pipes; Water pipes

Piston corers

See *also* Core samplers

Pit and mound topography

- Observations on organic mounds on the North Shore of the Gulf of St. Lawrence, Quebec Dionne, J.C., et al. (1988, p.289-301, fre) **44-3528**

Place names

See *also* Gazetteers

Placer mining

- Significant metalliferous lode deposits and placer districts of Alaska Nogleberg, W.J., et al. (1987, 104p., appen-Is, eng) **44-533**
 Offshore placer drilling technology: a case study from Nome, Alaska Bronston, M.A., (1990, p.26-31, eng) **44-2382**

Plains

- Paleocryogenosis and soils of the Russian plain Makeyev, A.O., et al. (1989, p.281-287, rus) **44-3560**

See *also* Floodplains

Planetary environments

- Albedo patterns of Triton Stansberry, J.A., (1989, p.961-964, eng) **44-364**
 Grain metamorphism in polar nitrogen ice on Triton Zent, A.P., et al. (1989, p.965-968, eng) **44-365**
 Study of planetary gases with applications to planetary interior models Bell, P.M., et al. (1988, 10p., eng) **44-721**
 First impressions of the comet drilling problem Mellor, M., (1989, p.229-232, eng) **44-2801**
 Neptune Kinoshita, J., (1989, p.82-91, eng) **44-3258**
 Pluto Binzel, R.P., (1990, p.50-58, eng) **44-3921**
 See *also* Mars (planet); Venus (planet)

Plankton

- AMERIEZ 1986 microzooplankton in the ice-edge zone Garrison, D.L., et al. (1989, p.175-176, eng) **44-24**
 AMERIEZ 1986 acoustic assessment of krill (*Euphausia superba*, Dana) Macaulay, M.C., et al. (1989, p.176-178, eng) **44-25**
 AMERIEZ 1986 nutrients and phytoplankton biomass in the ice-edge zone Nelson, D.M., et al. (1989, p.182-183, eng) **44-27**
 AMERIEZ 1986 photoadaptation of phytoplankton and light limitation of primary production Suoflo, J.B., et al. (1989, p.185-187, eng) **44-28**
 Rate of photosynthesis in phytoplankton under fast ice Satoh, H., et al. (1985, p.201, jpn) **44-62**
 Significance of ice-covers for planktonic algae Muller-Haackel, A., et al. (1989, p.174-177, eng) **44-323**
 Primary production, chlorophyll, light, and nutrients beneath the arctic sea ice Andersen, O.G.N., (1989, p.147-191, eng) **44-985**
 Arctic data compilation and appraisal. Vol. 9 Beaufort Sea Woods, S.M., et al. (1987, 94p., eng) **44-1459**
 Suspended-matter scavenging by rising frazil ice Reimnitz, F., et al. (1990, p.97-100, eng) **44-3526**

Plant ecology

- Relic cryoxerophytic communities of the western Chukotski peninsula and their soils Kozitskaya, I.I., et al. (1985, p.148-153, eng) **44-279**
 Phenological inversions in alpine tundra (western Tien Shan) Lynov, H.S., (1984, p.185-188, eng) **44-281**
 Establishment of *Salix alaxensis* on a gravel pad in arctic Alaska Bishop, S.C., et al. (1989, p.575-583, eng) **44-321**
 Ecological relationships of arctic-alpine vegetation in Brooks Range, AK Cooper, D.J., (1989, p.279-295, eng) **44-1092**
 Effects of ice jam on submersed macrophyte communities Nichols, S.J., et al. (1989, p.2364-2370, eng) **44-1527**
 Wetlands and vegetation, arctic foothills, Alaska Walker, M.D., et al. (1988, 89p., eng) **44-1600**
 Plant and soil groups in the alpine grasslands of the Vanoise Massif, French Alps Gensac, P., (1990, p.195-201, eng) **44-4051**
 Vegetation of the Storöen glacier foreland, Norway Whittaker, R.J., (1989, p.412-433, eng) **44-4460**
 Relation of vegetation pattern to snow cover on an antarctic hill Kappen, L., et al. (1990, p.209-220, eng) **44-4491**
 See *also* Forest ecosystems
- Plant introduction**
 See *also* Introduced plants
- Plant location**
 See *also* Site surveys
- Plant physiology**
 Physiology of plants in a cold arid climate Efimov, M.V., (1988, 159p., rus) **44-90**
 Phosphorus assimilation by roots of tundra sedge Kroehler, C.J., et al. (1988, 10p., eng) **44-672**
 Drama under the snow Burdasov, V., (1988, p.42-45, eng) **44-1463**
- Plant tissues**
 Proteins protect thylakoids against freeze-thaw damage in vitro Hinch, D.K., et al. (1990, p.416-419, eng) **44-2749**
 Use of ultrasound technique to monitor freezing and thawing of water in plants Raschi, A., et al. (1989, p.411-418, eng) **44-2946**

Plants (botany)

- Microflora of tundra soils Parinkina, O.M., (1989, 159p., rus) **44-52**
 Effect of ice nucleation-active xylem-residing bacteria on frost tolerance Gagne, S., et al. (1989, p.637-73, fre) **44-397**
 Vascular plant communities of a Canadian polar oasis Muc, M., et al. (1989, p.1126-1136, eng) **44-1026**
 Changes to the climate and flora of Hopen Island during the last 110 years Skye, L., (1989, p.323-332, eng) **44-1934**
 Flora and vegetation on the Russian plain during the Pleistocene Orlichuk, V.P., (1989, 382p., rus) **44-2040**
 Differences in growth and nutrient use among arctic plant growth forms Chapin, F.S., III, et al. (1989, p.73-83, eng) **44-2586**
 Adaptations in arctic plants Wronowski, J.E., (1990, p.44-45, eng) **44-4117**
 See *also* Agaves; Grasses; Introduced plants; Lichens; Mosses; Trees (plants); Vegetation
- Plants (industries)**
 See *also* Industrial buildings
- Plastic coatings**
 See *also* Protective coatings
- Plastic deformation**
 Motive forces of moisture migration in cryogenic deformation Lebedenko, H.F., (1989, p.13, eng) **44-1842**
 Model for the turning snow ski Renshaw, A.A., et al. (1989, p.72-75, eng) **44-1843**
 Effect of low-temperature strengthening on durability of structures Katarov, B.A., et al. (1990, p.120-125, rus) **44-4363**
 Effect of defect size on the strength of pipelines used in cold regions Lamonov, V.P., et al. (1990, p.127-130, rus) **44-4365**
 Features of plastic deformation and fracture of Ni-Si-Cu alloys Frohlich, H.A., et al. (1990, p.91-97, rus) **44-4379**
- Plastic properties**
 Studies of the localization of plastic flow of metals at low temperatures Efremov, V.I., et al. (1990, p.96-100, rus) **44-4358**
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- Plasticity tests**
 Mechanical properties of carbon, nickel steels at low temperatures Perkas, M.D., et al. (1990, p.187-188, rus) **44-4377**
 Effect of low temperatures on deformation of construction materials Skripnik, H.D., et al. (1990, p.224-229, rus) **44-4387**
 Determination of low-temperature strengthening of aluminum alloys Stepanov, G.A., et al. (1990, p.229-233, rus) **44-4388**
- Plastics**
 Cold climate effects on the properties of polyester wound plastic Gerasimov, A.A., et al. (1989, p.653-658, eng) **44-1871**
 Fatigue strength of polymer films at subzero temperatures Parfeyev, A.M., et al. (1988, p.655-663, eng) **44-1881**
 Strength of fiberglasses and organoplastics under low climatic temperatures Kozlov, S.A., et al. (1989, p.49-53, eng) **44-1882**
 Long-term observations of polystyrene placed in the road structure Orama, R., (1985, p.84-88, fre) **44-2514**
 Increasing resistance of synthetic fabrics to freezing Kiseleva, O.G., et al. (1989, p.1004-1007, rus) **44-2571**
 See *also* Cellular plastics
- Plastics ice friction**
 Influence of vibration on kinetic friction between plastics and ice Lehtovaara, A., (1987, p.131-138, eng) **44-3196**
 Friction between plastics and ice Lehtovaara, A., (1984, p.14-26, eng) **44-4464**
- Plastics snow friction**
 Kinetic friction between ski and snow Lehtovaara, A., (1989, 52p., eng) **44-1241**
- Platforms**
 Evaluation of state-of-the-art drilling platform ice accretion models Brown, R.D., et al. (1988, p.137-138, eng) **44-3319**
- Pleistocene**
 Glacial history of Iceland during the past three million years Einarsson, E., et al. (1988, p.227-234, eng) **44-13**
 Subglacial meltwater discharge in a tidewater glacier environment Pittman, S.L., et al. (1989, p.265-281, eng) **44-218**
 Reconstruction of the Late Pleistocene glaciation of the Tibetan highlands Lebedeva, I.M., (1989, p.98-107, rus) **44-303**
 Late Quaternary climate changes in eastern China Xu, X., (1989, p.10-19, chi) **44-646**
 Periglacial processes on the Qinghai-Xizang Plateau Wang, S.L., (1989, p.69-75, chi) **44-652**
 Geomorphology of the Pleistocene glacialation Sichuan Province Yu, C.L., (1989, p.76-81, chi) **44-653**

- Isotopic dating of the late Pleistocene Laurentide glacier
Hillaire-Marcel, C. et al. p 125-138. eng. 44-696
- Geological indicators of glacial glaciation in the middle
Kolyma basin. Ganyusheva, M.N. (1989, p 60-67. eng. 44-1003
- Hydrogeological and geotechnical properties of pleistocene
material in Wisconsin. Muldoon, M.A. et al. (1988, p 65-71. eng. 44-1058
- Paleoclimates and glaciation during the Pleistocene
Velichko, A.A. et al. (1989, p 24-31. rus. 44-1911
- Glacial meltwater inflow into the Gulf of Mexico
Kvasov, D.D. (1989, p 28-33. rus. 44-1912
- Landscape-climatic changes in the late glacial period in
USSR territory. Khotinski, N.A. (1989, p 39-47. rus. 44-1913
- Correlation of Pleistocene glaciations with transgressions of
the Black and Caspian seas. Zubakov, V.A. (1989, p 105-110. rus. 44-1915
- Glaciations in the east European region of the USSR
Velichko, A.A. et al. (1989, p 137-146. rus. 44-1916
- Glaciations and transgressions on the northeastern Baltic
shield. Evzerov, V.I.A. et al. (1989, p 147-154. rus. 44-1917
- Correlation and reconstruction of Pleistocene Baltic region
glaciations. Gargalas, A.I. et al. (1989, p 154-160. rus. 44-1918
- Some results of the correlation of Byelorussian Pleistocene
glaciations. Astafyeva, S.D. et al. (1989, p 160-166. rus. 44-1919
- Indicators of Late Cenozoic ice sheets and paleoclimates in
the Ukraine. Veklich, M.F. (1989, p 167-173. rus. 44-1920
- Correlating glacial deposits in the European USSR using
biological data. Gargalas, A.I. et al. (1989, p 179-185. rus. 44-1921
- Correlation of the glacial complex in the central Russian
plain. Sudakova, N.G. et al. (1989, p 185-191. rus. 44-1922
- Late Pleistocene glacial formations and terraces. Lavrov
A.S. et al. (1989, p 204-211. rus. 44-1923
- Paleogeographic regionalization of the glacial zone of Western
Siberia. Sukhorikova, S.S. (1989, p 211-216. rus. 44-1924
- Pleistocene glaciations of the Altai-Sayan region. Borisov,
B.A. et al. (1989, p 217-223. rus. 44-1925
- Pleistocene glaciations of northeastern USSR. Glushkova,
O.H. et al. (1989, p 224-231. rus. 44-1926
- Pleistocene glaciations in the upper and middle Kolyma
drainage basin. Voskresenski, S.S. et al. (1989, p 232-238. rus. 44-1927
- Ice sheet development on the arctic and subarctic
continental shelves. Matishov, G.G. (1989, p 238-244. rus. 44-1928
- Flora and vegetation on the Russian plain during the
Pleistocene. Grishuk, V.P. (1989, p 182p. rus. 44-2040
- Geomorphological criteria for correlating moraines of
various ages. Borisov, B.A. et al. (1989, p 28-35. rus. 44-2050
- Pedogenesis of paleosols on moraines. Syalain, Nizang,
Shen, Y.P. et al. (1989, p 269-278. chi. 44-2422
- Former glaciation and permafrost in Asia. Danilov, I.D.,
et al. (1989, p 92-103. eng. 44-2438
- Pleistocene ice wedge casts. Grosso, S.A. et al. (1989,
p 125-136. eng. 44-2618
- Reconstructing the dynamics of the north west European
Pleistocene ice sheets. Ehlers, J. (1990, p 71-83. eng. 44-3504
- Paleoclimatic model of the mid-Pleistocene climate
transition. Deblonde, G. et al. (1990, p 47-50. eng. 44-4160
- Pleistocene glaciomarine deposits on Baldwin Peninsula,
Alaska. Huston, M.M. et al. (1990, p 112-114. eng. 44-4173
- Lake Agassiz and its contribution to flow through the
Ottawa St. Lawrence system. Teller, J.L. (1988, p 281-289. eng. 44-4458
- See *palsoy* Ice age theory
- Poland**
- Katowice**
- Influence of atmospheric carbon on snow cover albedo in
Poland. Sztybel, A. (1989, p 1193-1196. eng. 44-2786
- Sarew River**
- Changes of the ice thermal regime in the river caused by
heated water discharges. Dobrowolski, A. et al. (1989, p 55-65. eng. 44-2023
- Vistula River**
- Ice jams and ice jam floods in the lower Vistula. Gziet,
M. (1985, p 499-525. pol. 44-2938
- Polar atmospheres**
- Winter sea ice-atmosphere interaction in southern polar
latitudes. Carleton, A.M. et al. (1989, p 87-101. eng. 44-400
- Baldwin borne atmospheric observations in the north polar
vortex. Rosen, J.M. et al. (1989, p 791-794. eng. 44-4162
- Determination of regional sources of aerosol black carbon
in the Arctic. Kahl, J.D. et al. (1989, p 377-381. eng. 44-4088
- Total ozone content variability in the north polar area
Nagaravi, A.P. et al. (1989, p 1099-1103. rus. 44-1758
- Studying large-scale ocean-atmosphere interaction in the
Earth's polar regions. Alekseev, G.V. et al. (1990, p 53-63. eng. 44-4067
- Studies of sea-air interaction in the North-European Basin
Alekseev, G.V. et al. (1990, p 63-75. eng. 44-4068
- Circulation variability in atmospheric processes of the
polar zone. Vinogradov, N.D. et al. (1990, p 170-176. eng. 44-4086
- Periodic atmospheric circulation dynamics in polar regions
Lagin, V.E. et al. (1990, p 192-193. eng. 44-4088
- Atmospheric aerosol trace gases and atmospheric
transparency in the Arctic. Barteneva, O.D. et al. (1990, p 203-212. eng. 44-4090
- Atmospheric trace gases in the polar environment
Kelley, J.J. et al. (1990, p 212-224. eng. 44-4091
- International project of the ozoneosphere investigation on
Heiss Island (HIP experiment). Khattatov, V.U. et al. (1990, p 224-226. eng. 44-4092
- Aircraft studies of polar stratospheric clouds in the Arctic
in 1988. Dosov, V.N. et al. (1990, p 226-229. eng. 44-4093
- Energy balance in polar regions. Weller, G. et al. (1990, p 231-234. eng. 44-4216
- Polar regions**
- On the satellite retrieval of aerosol optical thickness over
polar regions. Kergomard, C. et al. (1989, p 707-710. eng. 44-276
- MI/EN 87 meteorology atlas. Guest, P.S. et al. (1988, p 146p. eng. 44-710
- United States arctic research plan biennial revision: 1990-
1991. Brown, J. ed. (1989, p 72p. eng. 44-746
- Arctic in world affairs. Young, O.R. (1989, p 33p. eng. 44-1287
- Polar hydrography in the USSR. Burkov, G. et al. (1989, p 34-37. eng. 44-1716
- Polar Research Board. Antarctic-related activities, July
1987 through June 1988. Smith, A.L. (1988, p 216-217. eng. 44-2140
- Observational manoeuvres. (1990, p 42-46. eng. 44-3080
- Short-term climatic variability of the Arctic. Walsh, J.E.,
et al. (1990, p 237-250. eng. 44-3205
- Effect of global warming on arctic coastal and offshore
engineering. Gerwick, B.C., Jr. (1990, p 1-5. eng. 44-3384
- Greenhouse warming: consequences for Arctic climate
Etkin, D. (1990, p 54-66. eng. 44-3391
- Canadians confirm ozone hole in Arctic. Dayton, S.,
(1988, p 47. eng. 44-3586
- Neve/bia and related diatoms from arctic and antarctic
fast ice. Medlen, T.K. et al. (1990, p 451-479. eng. 44-3992
- See *palsoy* Arctic landscapes
- Polarization (charge separation)**
- Estimating the polarizability of frozen samples. Romanov,
V.P. et al. (1989, p 794-796. rus. 44-2573
- Polarization (waves)**
- Density and reverses of glaciers. Ivanov, A.I. (1989, p 140-143. rus. 44-350
- Polarization characteristics of melting hail. Tolmachev,
A.V. et al. (1989, p 65-70. rus. 44-813
- Light attenuation matrices for certain types of ice
Bogorodski, V.V. et al. (1987, p 361-363. eng. 44-2058
- Pollen**
- Postglacial vegetation of Canada. Ritchie, J.C. (1987, p 178p. eng. 44-1831
- Pollen from permafrost, SW Yukon territory. Wang,
X.C. (1989, p 99-112. chi. 44-2405
- Effects of frost heave on pollen accumulation rate
Wang, X.C. et al. (1989, p 223-229. chi. 44-2417
- See *palsoy* Palynology
- Pollution**
- Determination of nitrophenols in rain and snow. Alber,
M. et al. (1989, p 540-545. eng. 44-398
- Technogenic pollution of the snow cover on Svalbard
Toma, E.A. (1989, p 17-21. eng. 44-1000
- CHR operations in cold weather: a bibliography, Vol. 1
Carlin, H.R. et al. (1989, p 88p. eng. 44-1879
- Using bleach mixture for decontamination at low
temperatures. Walsh, M.E. et al. (1989, p 145. eng. 44-2116
- Inhibition of deicing road salts in aquifers. Tost, J. et al.
(1989, p 2186-2193. eng. 44-2274
- Atmospheric pollution as reflected by snowpack chemistry
in the Canadian Arctic. Gonselska, K. (1989, p 2729-2737. eng. 44-2751
- Snow cover affected by air. Prokacheva, V.G. et al. (1989, p 726p. append. rus. 44-2804
- Spatial variability of pollutants in snow cover in the USSR
Bezdika, V.A. et al. (1990, p 45-55. rus. 44-2849
- Vertical distribution characteristics of sulphate deposition
in snow cover. Vasilenko, V.N. et al. (1989, p 86-89. rus. 44-2850
- Pollution of snow on the ground. Tachibana, H. et al. (1989, p 313-315. jpn. 44-2895
- Pollution of the snow cover in the USSR. Vasilenko,
V.N. et al. (1989, p 1-55. rus. 44-2937
- Effect of frozen soil on erosion: a model approach
Botterweg, P.E. (1990, p 1387-144. eng. 44-2976
- Distribution of chlorinated hydrocarbon pesticides and
PCBs in the Arctic Ocean. Hargrave, B.E. et al. (1989, p 224p. eng. 44-3804
- Spreading of chemicals on ice and snow. Kawamura, T.
et al. (1986, p 106p. eng. 44-3960
- Evaporation of volatile liquids. Kawamura, T. et al. (1985, p 53p. eng. 44-1962
- Conference of arctic and antarctic countries on scientific
of arctic research. Proceedings. Part I. (1989, p 366p. + 445p. eng. 44-4061
- On chemical composition of atmospheric precipitation in
the Arctic. Smagin, V.M. et al. (1990, p 246-258. eng. 44-4094
- Environmental protection in the Soviet North
Shekhovtsov, V.A. (1990, p 251-255. eng. 44-4097
- Ecologic background monitoring in the Soviet Arctic
regions. Evseev, V.V. et al. (1990, p 255-262. eng. 44-4098
- Atmospheric chemicals in a Greenland ice core
Mavenski, P.A. et al. (1990, p 554-556. eng. 44-4259
- See *palsoy* Air pollution; Emission; Impacts; Oil spills; Sulfur pollution; Thermal pollution; Water pollution
- Polygonal topography**
- General overview of the surface of Mars. (1989, p 13-104. eng. 44-3411
- See *palsoy* Patterned ground
- Polymers**
- Non-equilibrium behaviour of polymer freeze-dried water
lysozyme. Zhang, J.Z. (1989, p 375-380. eng. 44-389
- Cold temperature characterization of polymers. Bigh,
S.R. (1986, p 46p. eng. 44-396
- Anomalous freezing of water in high polymers
structures. Highgate, D. et al. (1989, p 247-259. eng. 44-2790
- Low temperature benefits of polymers in the transport
King, G.N. et al. (1988, p 98-106. eng. 44-2839
- Low temperature characteristics of engineering plastics
Anderson, K.O. et al. (1988, p 297-303. eng. 44-2843
- Test apparatus for measurement of heat capacity of
cryogenic materials from 77 to 400 K. Fomin, V.S.
et al. (1990, p 223-226. eng. 44-3104
- Behavior of polymer-modified bitumens at low
temperatures. Kopsch, H. (1990, p 13-16. eng. 44-3304
- Low temperature effect on flexural behavior of polymer
composite. Currie, B. et al. (1989, p 149-151. eng. 44-3413
- Elastomers for subzero coldfield use require careful property
compromises. High, T.L. (1990, p 17-19. eng. 44-4132
- Creep and mechanical performance of polymers at low
temperatures. Asladsen, V.A. et al. (1989, p 147-153. rus. 44-4343
- Engineering of thermoplastics at cryogenic temperatures
Drozdov, V.V. (1990, p 109-115. rus. 44-4357
- Multicyclic fatigue of fluoroplastics at low temperatures
Muradkhanov, V.A. et al. (1990, p 87-100. rus. 44-4372
- Polynyas**
- Convective mixing and sea ice formation in the Weddell
polynya. Motin, E. et al. (1985, p 40-43. eng. 44-58
- Turbulent flux of sensible heat from the ice polynya
Engelbart, D. (1989, p 111-121. eng. 44-220
- Planetary boundary layer over the polynya downwind of a
Bering Sea island. Walter, B.A. (1989, p 255-262. eng. 44-411
- Arctic halos line and deep water. He, J.A. (1988, p 51p. eng. 44-673
- Air sea interactions in coastal zone: deep sea formation
and katabatic wind. Grice, H. et al. (1989, p 107-111. eng. 44-1352
- Sedimentation history of Terra Nova Bay region. Kossok,
T.A. (1988, p 104-106. eng. 44-1706
- Rapid frazil ice production in coastal polynya. Leshkev,
A. et al. (1989, p 113-126. eng. 44-1809
- Arctic oases. Strazik, E. (1989, p 8-19. eng. 44-2067
- Opening and closing of sea ice leads. Fily, M. et al. (1990, p 789-796. eng. 44-2137
- Attempt to interpret sea ice features from the MOS-
passive microwave data. Ono, N. (1989, p 513-520. eng. 44-3129
- Environment of wintertime leads and polynyas. Andrias,
T.L. (1989, p 273-288. eng. 44-3154
- Polynyas: their formation and significance. Lewis, T.L.
(1992, p 17-20. eng. 44-3267
- Role of ice margins and polynyas in high latitude
ecosystems. Neibauer, H.J. et al. (1989, p 271-274. eng. 44-3428
- Review of the oceanography and biogeography of
arctic leads and polynyas. Smith, S.D. (1990, p 123-126. eng. 44-3834
- Wind-generated polynyas off the coasts of the Bering Sea
islands. Kono, T. et al. (1990, p 126-137. eng. 44-3835

Polynyas (cont.)

- Polynya observation using satellite-derived images and charts Dey, B., et al. [1989, p. 141-149, eng] **44-3896**
- SST in polynyas: a case study Schluessel, P., et al. [1990, p. 933-945, eng] **44-4142**
- Laboratory study of heat flux through coastal polynyas during frazil-ice production Ushio, S., et al. [1990, p. 298-300, eng] **44-4213**
- Evolution of ocean winter mixed layer and sea ice Martinson, D.G., [1990, p. 11,641-11,654, eng] **44-4238**
- Southern ocean and global climate Gordon, A.L., [1988, p. 39-46, eng] **44-4448**
- See *also* Ice openings

Ponds

- Tundra ponds of the Yukon Delta, Alaska, and their macroinvertebrate communities MacIsaac, J.A., [1989, p. 193-206, eng] **44-86**
- Johnny Mountain gold mine: the high art of winter construction Dick, R.C., [1989, p. 54, eng] **44-1929**
- Intensity of destruction of fields in inter-alas landscape Bosikov, N.P., [1989, p. 149-154, eng] **44-2443**
- Effects of pit fluids on water quality of tundra ponds in Alaska West, R.L., et al. [1987, 49p., eng] **44-2943**
- Chemical precipitation in stabilization ponds in cold climates Odegard, H., et al. [1987, p. 71-77, eng] **44-3311**

Porosity

- Densification and porosity of glacier ice Lipenkov, V.I.A., [1989, p. 49-58, rus] **44-335**
- Excessive pressure in the pores of a snow cover Samoiluk, V.I., [1989, p. 169-172, rus] **44-356**
- Features of the firm of South Cascade Glacier, WA Fountain, A.G., [1989, p. 69-74, eng] **44-551**
- Ice and snow surveys from an ice station Hakansson, B., et al. [1988, p. 85-101, eng] **44-1428**
- Soil suction monitoring for roads and airfields Fredlund, D.G., [1989, p. 24-39, eng] **44-1640**
- Fracture toughness of porous ice with and without particles Smith, T.R., et al. [1990, p. 241-246, eng] **44-2230**
- Undersaturation in thawed permafrost at the beginning of freezeback Ayorinde, O.A., [1990, p. 317-321, eng] **44-2241**
- Seasonal variations in porosity and density of ice in Yenisey Bay Latalin, D.A., [1985, p. 54-58, rus] **44-2373**

- Pore structure of concrete and freezing vulnerability Phillips, R.E., et al. [1989, 18p., eng] **44-2815**
- Compaction and internal structure of Mimas Fluszkiewicz, J., [1990, p. 215-225, eng] **44-3599**

Porous materials

- Multiphase flows in porous media Morel-Seytoux, H.J., [1987, p. 103-174, eng] **44-307**
- Durability of particulate grouts for isolation of low-level radioactive wastes Okonkwo, I.O., [1989, 490p., eng] **44-965**
- Experimental determination of pore pressure development in a thawing soil Axelsson, K., et al. [1988, p. 489-495, eng] **44-1166**
- Effects of free convection on steady state freezing in a porous medium-filled cavity Oosthuizen, P.H., [1988, p. 321-327, eng] **44-1415**
- Depression of freezing temperature of water and water solutions in porous materials Schneider, P., et al. [1989, p. 2644-2647, eng] **44-2337**
- Effect of freezing on mass and heat transfer in porous media Eldin, N.N., et al. [1990, p. 177-185, eng] **44-2981**
- Natural convection melting of a frozen porous medium Chellaiah, S., et al. [1990, p. 887-899, eng] **44-3783**
- Parametric analysis of self-freezing in an initially wet porous medium Fey, Y.C., et al. [1988, p. 147-155, eng] **44-3930**
- Water regime of asteroid (1) Ceres Fanale, F.P., et al. [1989, p. 97-110, eng] **44-3968**
- Study of water saturated porous media in the presence of convection Chellaiah, S., [1988, 196p., eng] **44-4499**

Portable equipment

- Automated collection of water-quality and discharge data on streams Sturges, D.L., et al. [1989, p. 122-125, eng] **44-512**
- Sequential flash for photographing trajectories of salting particles Bird, K.G., et al. [1989, p. 130-133, eng] **44-514**

Portable shelters

- Winter field testing of U.S. Navy fleet hospital Sletten, R.S., et al. [1988, 12p., eng] **44-269**
- Portable command post shelter for cold regions Smith, C.L., et al. [1989, 18p. + append., eng] **44-1845**

Ports

- Port in the Arctic Vinogradova, N., [1986, p. 49-41, rus] **44-329**
- Thermal regime of moorings in a Yakut river port Sobor, S.V., et al. [1989, p. 68-71, rus] **44-373**
- Small boat harbor Larsen Bay, Alaska: Draft detailed project report with environmental assessment [1989, 153p. + append., eng] **44-439**
- Construction of the port of Nome, Alaska Campion, D., et al. [1988, p. 627-632, eng] **44-179**

- Design of AIDA seaport, Chukchi Sea shore, Alaska Guillermo, E.C., et al. [1988, p. 633-660, eng] **44-1180**

- Freezing of ports on Japan Sea in Hokkaido Honma, F., et al. [1985, p. 95-102, jpn] **44-2299**

- Problems on freezing at harbors in Hokkaido Umezawa, N., et al. [1983, p. 277-282, jpn] **44-2694**

- Some considerations on ice control in a harbor Izumi, K., et al. [1988, p. 322-329, jpn] **44-2700**

- Air bubbling against freezing in ports Endo, K., et al. [1989, p. 223-228, jpn] **44-3633**

- Ice loads on harbor structures Smirnov, G.N., et al. [1990, p. 27, rus] **44-4480**

- Power line icing Preventive heating of power lines of direct current contact nets Golev, V.A., [1988, 77p., rus] **44-70**

- Ice accretion and snow loading on overhead transmission lines Larcombe, P.J., [1989, 225p., eng] **44-1020**

- Study of ice shedding phenomenon on cables Druet, J., et al. [1990, p. 143-148, eng] **44-2217**

- Expert system to decide anti-snow measures for power lines Matsunami, S., et al. [1988, p. 226-231, jpn] **44-2689**

- Risk probability map of wet snow accretion on power line Ishihara, K., et al. [1989, p. 87-94, jpn] **44-2861**

- Expert system to decide measures against snow on power lines Choi, K.H., et al. [1989, p. 150-155, jpn] **44-2871**

- Galloping of overhead transmission lines Koutselos, I.T., [1990, 264p., eng] **44-3272**

- Atmospheric icing of transmission lines Ervik, M., et al. [1989, 67p. + append., eng] **44-3330**

- Voltage resistance of snow covered insulators on AC transmission lines Takasu, K., et al. [1988, 65p., jpn] **44-3334**

- DC voltage resistance of snow covered insulators Takasu, K., et al. [1988, 34p., jpn] **44-3335**

- On the control of conductor rotation from snow loading by counterweights Skelton, P.I.L., et al. [1989, p. 2829-2838, eng] **44-3601**

- Mathematical models for rime-ice accretion on conductors Skelton, P.I.L., et al. [1990, p. 309-321, eng] **44-3604**

Power lines

- Estimation of wet snow accretion on structures Makkonen, L., [1989, 583-88, eng] **44-831**

- Snow effect on power line insulators Imano, Y., et al. [1988, 49p., jpn] **44-1504**

- Electrical supply installations for the Baykal-Amur mainline Darchiev, S.Kh., et al. [1989, 175p., rus] **44-1826**

- Sticky snow: stopping the damage Admirat, P., et al. [1990, p. 96-99, fre] **44-3412**

- See *also* Transmission lines

Power supply

- See *also* Electric power, Nuclear power, Wind power generation

Precast concretes

- Development of arch type PC shelters Wakabayashi, O., et al. [1986, p. 307-312, jpn] **44-2474**

Precipitation gages

- Canadian participation in the WMO solid precipitation measurement intercomparison Goodison, B.E., et al. [1988, p. 199-207, eng] **44-249**

- Snowpack monitoring manual Chaloud, D.J., et al. [1987, 139p., eng] **44-1273**

- General aspect of correction of errors in precipitation measurements abroad Yang, D.Q., [1989, p. 177-183, chi] **44-2413**

- Some measuring methods of snowfall rate for radar snow gauge Endoh, T., et al. [1986, p. 92-97, jpn] **44-2450**

- Accuracy of linear robot snow depth gage Muramatsu, I., et al. [1990, p. 25-28, jpn] **44-3403**

- Radar rain and snow gages (Part 2) Takahashi, T., et al. [1989, p. 5-10, jpn] **44-3522**

Precipitation (meteorology)

- Geochemistry of atmospheric precipitation and chemical runoff formation Makarov, V.N., [1989, p. 139-149, rus] **44-160**

- Analysis of the water balance and water resources in the mountainous Heihe River basin Yang, Z.N., [1989, p. 53-59, eng] **44-172**

- Mass balance and climatic records from NW American glaciers Pelto, M.S., [1989, p. 95-102, eng] **44-177**

- Glacier classification in China Tan, Z.M., et al. [1989, p. 103-111, eng] **44-178**

- Perfectly round and clear ice pellet drops Tenggenhager, K., [1989, p. 234-236, ger] **44-284**

- Runoff forecasting from snowmelt, Huanghe and Heihe rivers Zhang, S.Y., et al. [1988, p. 73-84, chi] **44-638**

- Origin of arctic precipitation under present and glacial conditions Johnsen, S.J., et al. [1989, p. 457-465, eng] **44-1445**

- Indicator of massive avalanche formation and control by avalanches Volodicheva, N.V., et al. [1989, p. 135-135, rus] **44-1581**

- Minnesota cold regions pavement test facility Newcomb, D.E., et al. [1989, p. 360-369, eng] **44-1671**

- Motions of ice crystals and water films in the atmosphere Nisbet, J.S., [1988, 60p., eng] **44-1721**

- Charskaya Basin: geographical position, geology of the BAM zone Naptashnikov, A.I., et al. [1987, 90p., rus] **44-1875**

- Estimates of antarctic precipitation Brown, D.H., [1990, p. 627-629, eng] **44-2104**

- General aspect of correction of errors in precipitation measurements abroad Yang, D.Q., [1989, p. 177-183, chi] **44-2413**

- Attenuation and reflection of radio waves in a snow layer of precipitation Klauser, W., [1989, p. 274-274, eng] **44-2695**

- Forecast of mesoscale snowfall for winter conditions Burrows, W.R., [1990, p. 2127-2147, eng] **44-2648**

- Collection of noncorrosive materials for use in N.Y. et al. [1988, 120p., eng] **44-2741**

- Long-term climatic and environmental changes in the antarctic ice Torres, C., et al. [1989, p. 103-103, eng] **44-2781**

- Chemical composition of precipitation snow in the city of Denver, Colorado Schuster, P., et al. [1989, p. 83-90, eng] **44-3037**

- Models for the orientation of hydrometeors Madsen, G.C., [1989, p. 307-309, eng] **44-3102**

- Formation characteristics of different types of winter precipitation Averis, A.C., [1989, p. 349-349, eng] **44-3497**

- Lagrangian modeling of the ice process in the snow Knight, C.A., et al. [1990, p. 418-448, eng] **44-3875**

- Influence of summertime precipitation on the snow production in the Karakoram northern slope Wang, C.P., [1989, p. 28-35, eng] **44-3996**

- "Cloudless" ice crystal precipitation in the polar regions Curry, J.V., et al. [1989, p. 3083-3083, eng] **44-4041**

- Ice microphysics and radiation processes in a stratocumulus cloud Smith, T.A., et al. [1989, p. 103-103, eng] **44-4045**

- Numerical modeling of passive microwave observations over precipitation Gasiewski, A.L., et al. [1990, p. 235-235, eng] **44-4128**

- Stable isotope precipitation model Esser, D.A., [1989, p. 65-71, eng] **44-4164**

- Air temperature and precipitation at Waples Bay, Alaska Mayo, L.R., et al. [1990, p. 161-164, eng] **44-4191**

- Errors in measuring the winter precipitation over the area from the precipitation gage network Avogadro, A.S., et al. [1989, p. 25-31, rus] **44-4227**

- Precipitation in the cold season in the mountainous regions Galadzhov, N.M., et al. [1989, p. 35-46, rus] **44-4229**

- Effect of large industrial sites on solid precipitation Zabolotskaya, I.N., et al. [1989, p. 46-55, rus] **44-4230**

- See *also* Hail, Rain, Snowfall

Preserving

- See *also* Storage

Pressure

- Case study on freezing pressure in a deep shaft Chou, W.X., [1989, p. 481-486, eng] **44-923**

- Shaft lining and freezing wall in shaft sinking by freezing Chou, W.X., [1989, p. 487-490, eng] **44-924**

- Wave uplift forces exerted upon caisson-type breakwaters Kadono, T., et al. [1988, p. 465-475, eng] **44-1164**

- Experimental determination of pore pressure development in a thawing soil Axelsson, K., et al. [1988, p. 489-495, eng] **44-1166**

- Pavement design with the pavement pressurimeter Braud, J.L., et al. [1989, p. 170-179, eng] **44-1655**

- Confined compressive test on multi-layer scale ice Yang, Q.J., et al. [1990, p. 237-240, eng] **44-2229**

- Phase composition of water in freezing and thawed soils Kondakov, V.V., et al. [1989, p. 2127-2127, rus] **44-2517**

- Effect of stress concentration on local frost susceptibility Novopashin, M.D., et al. [1990, p. 172-176, rus] **44-4375**

- See *also* Atmospheric pressure, Ice pressure, Soil pressure, Vapor pressure, Water pressure, Wind pressure

Pressure ridges

- Profiling multiview ice features Harrington, M.G., et al. [1988, p. 121-131, eng] **44-1134**

- Keel depth in sea ice, Bohai Gulf, China Deng, S.Q., [1988, p. 151-162, eng] **44-1136**

- Airborne radar observations Johansson, R., et al. [1988, p. 119-147, eng] **44-147**

- Characteristics of ridges in Northumberland Strait Brown, T.G., et al. [1990, p. 293-299, eng] **44-2238**

- Model of ice ridge breaking by USCGC Polar Star Comfort, G., et al. [1989, p. 127-126, eng] **44-3019**

- Continuous motion of a ship in ridged ice Tanaka, A.I., [1984, p. M1-M1-9, eng] **44-3461**

- Physical modelling of a first-year ridge ramming event Comfort, G., et al. [1990, p. A1-A1-24, eng] **44-3465**

- Small-scale under-ice morphology study in the high Arctic Connors, D.N., et al. [1990, p. 145-151, eng] **44-3939**

- Simulation of the ice ridging process. Hopkins, M.A., et al. (1990, p.152-156, eng) **44-3840**
- Airborne laser profiling of ice ridges in the Baltic Sea. Lewis, J.E., et al. (1989, p.1370-1379, eng) **44-4436**
- Prestressed concretes**
- Thermal and dynamic response of concrete at low temperature. Marshall, A.L., et al. (1988, p.519-526, eng) **44-1169**
- Prevention**
- See *also*: Countermeasures
- Primary productivity**
- See *also*: Biomass
- Probes**
- Continuous electrochemical monitoring of snow melt in Utah, U.S.A. McCall, R.C., et al. (1988, p.169-178, eng) **44-246**
- Developments in ice stations of the US and other NATO countries. Stoliarov, N. (1989, p.72-73, rus) **44-2627**
- Droplet sizing instrumentation used for icing research. Hovenac, E.A., (1989, 53p., eng) **44-2808**
- Snow particle size spectra in lake effect snows. Braham, R.R., Jr. (1990, p.200-207, eng) **44-3795**
- Production**
- See *also*: Manufacturing
- Profiles**
- Profiling multiyear ice features. Harrington, M.G., et al. (1988, p.121-131, eng) **44-1134**
- Under-ice thickness distribution of the Arctic Basin. McLaren, A.S. (1988, p.133-149, eng) **44-1135**
- Digital low-frequency, surface-profiling ice-radar system. Wright, D.L., et al. (1990, p.112-121, eng) **44-3730**
- See *also*: Soil profiles; Stratigraphy
- Projectile penetration**
- Frozen soil impact tests of strategic bombs. Dockery, H.A., et al. (1987, 25p., eng) **44-960**
- Ice-penetrating buoy developed by Navy. Pickett, R.L., (1989, p.79-81, eng) **44-1464**
- Projects**
- See *also*: Research projects
- Propagation**
- See *also*: Wave propagation
- Propellers**
- Problems of ice mechanics in icebreaker's design. Dem'ianchenko, V.I.A., et al. (1983, 6p., eng) **44-191**
- Loads on shafts of river icebreakers. Chernov, S., et al. (1986, p.31, rus) **44-330**
- Procedure for predicting propeller-ice interaction forces. Chernukha, M.W., et al. (1989, 263p., eng) **44-391**
- Mechanics of ice crushing by propeller blades. Belashov, V.A., et al. (1983, 10p., eng) **44-605**
- Response of ship propeller blades to ice loads. Spencer, P.A., et al. (1989, Var. p., eng) **44-837**
- Ice edge studies aboard Polar Sea, Vol.3, propeller ice loads. Meyer, J.R., et al. (1986, 350p., eng) **44-883**
- Selection of an optimum propeller for commercial ships. Final report. Hadler, J.B. (1988, 77p., eng) **44-1056**
- Icing drag properties of iced propellers. Miller, T.L., et al. (1987, p.6107-6117, eng) **44-1192**
- Propeller-ice flow interaction of ice capable ships. Sasajima, T., et al. (1985, p.108-113, jpn) **44-2301**
- Prospecting**
- See *also*: Electromagnetic prospecting; Exploration; Geothermal prospecting; Gravimetric prospecting; Seismic surveys; Surveys
- Protection**
- Avalanche starting-zone analysis by use of a knowledge-based system. Buisson, L., et al. (1989, p.27-30, eng) **44-543**
- Cathodic protection for pipelines crossing the Mackenzie River. Wiskel, B.J., et al. (1989, p.15-19, eng) **44-1870**
- Freeze-thaw repairs to Haweswater Dam. Barfoot, J., (1989, p.44-45, eng) **44-1885**
- Protective construction methods on permafrost areas. (1989, p.1-3, 6-7, eng) **44-2400**
- Jacket structures in the arctic and subarctic seas. Kimura, T., et al. (1988, p.1-6, eng) **44-3347**
- Analysis of the composite ice wall. Corder, P.R., et al. (1990, p.21-39, eng) **44-3798**
- See *also*: Bank protection (waterways); Countermeasures; Environmental protection; Frost protection; Slope protection; Soil stabilization
- Protective coatings**
- Experimental studies on reducing methods of uplift force to a steel pipe. Nakagawa, S., et al. (1989, p.565-566, eng) **44-937**
- Durability of coated steel in sea ice regions. Katoh, H., et al. (1989, p.213-220, eng) **44-1116**
- Bond between coated steel surfaces and sea spray ice. Sackinger, W.M., et al. (1988, p.565-570, eng) **44-1173**
- Corrosion resistance of metal sprayed coatings in frigid zone (Pt 4). Kitamura, Y., et al. (1988, p.69-77, jpn) **44-1295**
- Wall coatings for concrete and masonry buildings. Korhonen, C.J., et al. (1989, 27 refs., eng) **44-1878**
- Coatings for concrete structures in cold region. Saeki, N., et al. (1986, p.536-541, jpn) **44-2496**
- Protective coatings for steel structures in cold regions. Saeki, N., et al. (1986, p.557-563, jpn) **44-2499**
- Durability of external wall coatings in cold region. Inoue, S., et al. (1988, p.67-74, jpn) **44-2667**
- Thermal sprayed coatings on concrete surface and its properties. Futamata, M., et al. (1988, p.479-484, jpn) **44-2715**
- Low temperature effects on tribotechnical properties of coated surfaces. Gamulia, G.D., et al. (1989, p.60-65, eng) **44-3009**
- Electro-expulsive system for ice removal. Haslim, L., et al. (1989, p.292-302, eng) **44-3155**
- Arctic/cold weather surface ship program. Kover, D.J., (1989, p.303-313, eng) **44-3156**
- Effect of heat treatment, chemical composition and anticorrosive coatings on the threshold of cold brittleness of structural steels. Belkin, L.M., et al. (1990, p.33-38, rus) **44-4345**
- See *also*: Surfactants
- Protective vegetation**
- See *also*: Forest strips; Snow hedges
- Proton transport**
- Thermodynamics of irreversible processes applied to ice. Jaccard, C., (1964, p.99-118, eng) **44-2076**
- Proton mobility in liquid and frozen HClO₄-5H₂O. NMR and conductivity measurements. Huang, T.H., et al. (1988, p.6874-6876, eng) **44-3618**
- Conductivity by ionic defects in hydrogen-bonded chains. Gordon, A., (1989, p.1113-1115, eng) **44-3694**
- Vibrational spectra and point defect activities of ice solids and gas phase clusters. Devlin, J.P., (1990, p.29-65, eng) **44-3967**
- Protons**
- Bjerrum defects and proton conduction in a one-dimensional ice model. Sergienko, A.I. (1988, p.496-498, eng) **44-2057**
- Quaternary deposits**
- Holocene proxy-climate data from the Canadian Arctic. Ovenden, L., (1988, 11p., eng) **44-370**
- Quaternary geology and permafrost between Fairbanks and Anchorage. Pewé, T.L., ed. (1989, 54p., eng) **44-431**
- Modern clastic depositional systems of Southcentral Alaska. Hayes, M.O., et al. (1989, 42p., eng) **44-461**
- Freeze-thaw test of rock samples from Dunhuang Cave. Fukuda, M., et al. (1988, p.223-230, jpn) **44-742**
- Quaternary deposits and events around the Beaufort Sea. Heginbottom, J.A., ed. (1986, 60p., eng) **44-779**
- Permafrost record and Quaternary history of Northwestern Canada. Mackay, J.R., (1986, p.38-40, eng) **44-780**
- Permafrost distribution and Quaternary history of Mackenzie Delta. Judge, A.S. (1986, p.41-45, eng) **44-781**
- Quaternary paleoecology and geology of the seas of northern Europe. Matishov, G.G., et al. (1989, 114p., rus) **44-1910**
- Paleoclimates and glaciation during the Pleistocene. Velichko, A.A., ed. (1989, 247p., rus) **44-1911**
- Correlation and reconstruction of Pleistocene Baltic region glaciations. Gaigalas, A.I., et al. (1989, p.154-160, rus) **44-1918**
- Indicators of Late Cenozoic ice sheets and paleoclimates in the Ukraine. Veklich, M.F., (1989, p.167-173, rus) **44-1920**
- Quaternary paleogeography and periglacial geomorphology of Mt. Huangshan. Zhou, B.G., et al. (1989, p.161-166, chi) **44-2410**
- Former extension of the East Antarctic ice sheet. Lundqvist, J., (1989, p.109-117, eng) **44-2444**
- Quaternary geology of the Great Basin. Smith, G.I., et al. (1989, 78p., eng) **44-3226**
- Radar**
- Handbook of radar scattering statistics for terrain. Uhlaby, E.T., et al. (1989, 357p., eng) **44-75**
- Snow-radar: an efficient tool for areal snow pack assessments. Killingtveit, A., et al. (1988, p.145-157, eng) **44-244**
- Calibrated L-band terrain measurements and analysis program results. Larson, R.W., et al. (1988, 109p., eng) **44-725**
- Effects of snow on landmarks in K(u) band SAR. Murray, M., (1989, 127p., eng) **44-786**
- Three-wave automated radar system. Abshaev, M.T., et al. (1989, p.93-99, rus) **44-815**
- Active and passive remote sensing of ice. Kong, J.A., (1989, 23p., eng) **44-856**
- Calibrated L-band terrain measurements and analysis program. Larson, R.W., et al. (1987, 106p., eng) **44-1233**
- Active microwave observations of sea ice and iceberg. Skriver, H., et al. (1986, p.14-24, eng) **44-1237**
- Radar for finding persons buried in snow. Sakamoto, Y., et al. (1986, p.107-110, jpn) **44-2453**
- Arctic marine radar development. Gautier, C., (1990, Var. p., eng) **44-2768**
- Ice flows off Okhotsk coast of Hokkaido, 1989. Aota, M., et al. (1989, p.71-82, jpn) **44-3045**
- Effect of the equatorial Pacific Ocean on interannual variability in the Okhotsk Sea ice. Tachibana, Y., et al. (1989, p.71-77, jpn) **44-3126**
- The snow-radar: a new device for areal snow depth measurements. Andersen, T., et al. (1987, p.269-284, eng) **44-3316**
- Snow-radar: an efficient tool for areal snow pack assessments. Killingtveit, A., et al. (1988, p.259-271, eng) **44-3324**
- Radar ice thickness gauge. Klein, G.S., et al. (1989, p.58-73 (Pertinent p.67-68), rus) **44-3909**
- See *also*: Airborne radar; Side looking radar
- Radar echoes**
- Radar backscattering from artificially grown sea ice. Bredow, J., et al. (1989, p.259-264, eng) **44-8**
- Radar echoes of precipitating snow clouds in Japan. Kikuchi, K., et al. (1989, p.221-230, eng) **44-379**
- Airborne SAR observations of ocean surface waves penetrating floating ice. Ranev, R.K., et al. (1989, p.492-500, eng) **44-403**
- Doppler radar measurements of a kinematic wind field. Tsuboki, K., et al. (1988, p.73-88, jpn) **44-733**
- Labrador ice margin experiment, 1987. Drinkwater, M.R., et al. (1989, p.335-342, eng) **44-763**
- Attenuation and scattering of radar waves of nonhomogeneous hail. Inuikhin, V.S., et al. (1989, p.53-59, rus) **44-812**
- Transformation of radar characteristics of the spectra of melting hail. Inuikhin, V.S., et al. (1989, p.42-52, rus) **44-867**
- Algorithm for calculating radar echoes of water saturated hailstones. Zhakamikhov, Kh.M., et al. (1989, p.62-71, rus) **44-868**
- SAR flight. Kuittinen, R., (1988, p.17-29, eng) **44-1424**
- Ground base L. Vainio, J., (1988, p.31-40, eng) **44-1425**
- Ice and snow surveys from an ice station. Hakansson, B., et al. (1988, p.85-101, eng) **44-1428**
- Helicopter impulse radar measurement. Ulrikson, P., (1988, p.149-151, eng) **44-1432**
- Electromagnetic studies on the Siple Coast, 1987-1988. Bentley, C.R., et al. (1988, p.56-58, eng) **44-1692**
- Modern radar for ice-sheet sounding. Demarest, K.R., et al. (1988, p.63-64, eng) **44-1697**
- Radar observations of snowfalls in 1985 over the Shimo basin. vertical scanning. Uyeda, H., et al. (1987, p.121-130, eng) **44-1748**
- Temperature drops produced by snow cloud microbursts. Shirooka, R., et al. (1989, p.367-380, eng) **44-1749**
- Satellite radar altimetry over ice. Vol.2: Greenland. Zwally, H.J., et al. (1990, 82p., eng) **44-1824**
- Satellite radar altimetry over ice. Vol.4: Antarctica. Zwally, H.J., et al. (1990, 54p., eng) **44-1825**
- Nearshore ice conditions from radar data. Point Barrow area, Alaska. Shapiro, L.H., et al. (1989, 43p., eng) **44-1829**
- Satellite radar altimetry over ice. Vol.1: Greenland. Zwally, H.J., et al. (1990, 145p., eng) **44-1889**
- Topography and surface features of Larsen Ice Shelf. Ridley, J.K., et al. (1989, p.299-310, eng) **44-1890**
- Radar to find persons buried in snow. Sakamoto, Y., et al. (1987, p.168-172, jpn) **44-2535**
- Effect of pulse length changes on Weibull clutter of sea ice. Sekine, M., et al. (1990, p.15-18, eng) **44-2639**
- Possibility of determining winter sea ice characteristics from satellite IR and radar imaging data. Provornik, A.V., (1989, p.68-74, rus) **44-2825**
- Estimating sea ice thickness using data from impulse radar soundings. Kovacs, A., et al. (1989, 10p., eng) **44-2848**
- SAR image statistics related to atmospheric drag over sea ice. Burns, B.A., (1990, p.158-165, eng) **44-3011**
- Transit-Doppler measurements of the Filchner Ice Shelf motion in 1984. Ellmer, W., et al. (1987, p.399-410, ger) **44-3084**
- Models for the orientation of hydrometeors. McCormick, G.C., (1989, p.1301-1309, eng) **44-3102**
- Ice thickness radar measurements during CEAREX. Onstott, R.G., et al. (1989, p.451-460, eng) **44-3162**
- Analysis of a short pulse radar survey of reverbations along the Mississippi River. Arcone, S.A., (1989, 20p., eng) **44-3199**
- Estimation of rain and hail rates in mixed-phase precipitation. Balakrishnan, N., et al. (1990, p.565-583, eng) **44-3283**
- Differential reflectivity radar hail measurement techniques. Aydin, K., et al. (1990, p.104-113, eng) **44-3285**
- Structure of a land breeze and snowfall enhancement at the leading edge. Tsuboki, K., et al. (1989, p.757-770, eng) **44-3307**
- Doppler radar observation of orographic modification of snow clouds: a case of enhanced snowfall. Nakai, S., et al. (1990, p.1-16, jpn) **44-3310**
- 150 MHz coherent radar system. Moore, R.K., et al. (1989, p.42-47, eng) **44-3358**
- Algorithm for extraction of ice thickness data from short pulse radar signals. Rick, I., et al. (1990, p.147-145, eng) **44-3394**
- Inexpensive polarimetric, FM radar and polarimetric signatures of artificial sea ice. Gignoni, S.P., et al. (1989, p.188-191, eng) **44-3399**
- Determination of a Z-R relationship for snowfall using a radar and high sensitivity snow gauges. Fuyoshi, Y., et al. (1990, p.147-152, eng) **44-3418**

Radar echoes (cont.)

- Radar rain and snow gauges (Part 2). Takahashi, T., et al. [1989, p.5-10, jpn] **44-3522**
- Sea ice thickness versus impulse radar time-of-flight data. Kovacs, A., et al. [1990, p.91-98, eng] **44-3543**
- Unfrozen water content of saline permafrost. Hivon, E., et al. [1990, p.257-262, eng] **44-3670**
- Millimeter-wave backscatter characteristics of multilayered snow surfaces. Narayanan, R.M., et al. [1990, p.693-703, eng] **44-3695**
- Digital low-frequency, surface-profiling ice-radar system. Wright, D.L., et al. [1990, p.112-121, eng] **44-3730**
- Physical properties of brackish ice, Bay of Bothnia. Weeks, W.F., et al. [1990, p.5-15, eng] **44-3809**
- Airborne sea ice thickness sounding. Kovacs, A., et al. [1990, p.225-229, eng] **44-3855**
- Method for measuring snow depth using fine-resolution radars. Lei, G., et al. [1989, p.151-158, eng] **44-3897**
- Radar backscatter measurements over saline ice. Gogineni, S., et al. [1990, p.603-615, eng] **44-3901**
- Comparison of measurements of snowfall by radar using an S-band and an X-band transmitter. Giguere, A., [1989, p.82-98, eng] **44-4001**
- Alternate use of two different emitters in radar observation of mixed precipitation. Giguere, A., [1989, p.252-256, fre] **44-4023**
- Radar study of active layer thicknesses in wet tundra in AK. Doolittle, J.A., et al. [1990, p.175-182, eng] **44-4050**
- Radar reflectivity of Titan. Muhleman, D.O., et al. [1990, p.975-980, eng] **44-4145**
- Classification of sea-ice images using a dual-polarized radar. Orlando, J.R., et al. [1990, p.228-237, eng] **44-4269**
- Radar surveying of the bottom surface of ice covers. Arcone, S.A., et al. [1990, p.30-39, eng] **44-4468**
- Radar photography**
- Sea ice interpretation on satellite radar images. Bushuev, A.V., et al. [1989, p.359-370, eng] **44-181**
- Comparing radar images of sea conditions with photographs. Mitnik, L.M., et al. [1989, p.371-381, eng] **44-182**
- Use of Kosmos-1500 satellite radar images to study the distribution and the dynamics of sea ice. Bushuev, A.V., et al. [1989, p.382-390, eng] **44-183**
- Comparing sea ice photographs taken from airplanes and from satellites. Aleksandrov, V.I., et al. [1989, p.391-396, eng] **44-184**
- Radar maps of the Arctic and Antarctic using data from the Kosmos-1500 satellite and preliminary results of their analysis. Burtsev, A.I., et al. [1989, p.434-451, eng] **44-185**
- Kosmos-1500 satellite side-looking radar. Kalmykov, A.I., et al. [1989, p.471-485, eng] **44-186**
- Informational possibilities of the side-looking radar system of the "Kosmos-1500" satellite. Tsybaly, V.N., et al. [1989, p.486-501, eng] **44-187**
- Digital processing of radar images acquired by the Kosmos-1500 satellite. Asmus, V.V., et al. [1989, p.529-543, eng] **44-188**
- Estimating ocean wave spectra by SAR. Tilley, D.G., [1989, p.483-491, eng] **44-402**
- Implications of ice surface features for SAR backscatter signatures. Drinkwater, M.R., [1989, p.501-513, eng] **44-404**
- Use of a new high-speed digital data acquisition system in airborne ice-sounding. Wright, D.L., et al. [1989, p.561-567, eng] **44-410**
- Variation in ice concentration off Hokkaido Island. Aota, M., et al. [1988, p.161-175, jpn] **44-737**
- SAR flight. Kuitinen, R., [1988, p.17-29, eng] **44-1424**
- Investigation of radar characteristics of fresh-water ice sheets. Kondrat'ev, K.I.A., et al. [1988, p.6-8, eng] **44-1559**
- Primary factors affecting the radar image tint. Klishes, T.M., [1985, p.62-68, rus] **44-2375**
- Radar image processing of snow stratigraphy. Suzuki, M., et al. [1987, p.173-178, jpn] **44-2536**
- Radar imaging of objects buried in snow. Mitsuhashi, R., et al. [1989, p.569-573, jpn] **44-2918**
- Radar data gathering on M.V. Arctic. Final report. Gautier, C., [1990, 23p, eng] **44-3008**
- Ice island detection and characterization with airborne synthetic aperture radar. Jeffries, M.O., et al. [1990, p.5371-5377, eng] **44-3279**
- Multiparameter radar modeling and observations of melting ice. Vivekanandan, J., et al. [1990, p.549-564, eng] **44-3282**
- Ice-motion tracking system at the Alaska SAR facility. Kwok, R., et al. [1990, p.44-54, eng] **44-3621**
- Ice-ocean eddies in the Sea of Okhotsk. Wakatsuchi, M., et al. [1990, p.585-594, eng] **44-3692**
- Are backscatter features from the Malaspina Glacier surface expressions of subglacial morphology. Molnia, B.F., et al. [1989, p.701-710, eng] **44-3714**
- Use of satellite images for snowfall prediction. Beckman, S.K., [1990, p.259-277, eng] **44-3905**
- Star Vue interactive assistance. McAvoy, J.G., [1990, 26p + appns, eng] **44-3947**

Radar tracking

- Synthetic aperture radar in Marginal Ice Zone Experiment. Shuchman, R.A., et al. [1988, 137p, eng] **44-701**
- Ice-motion tracking system at the Alaska SAR facility. Kwok, R., et al. [1990, p.44-54, eng] **44-3621**
- Radiance**
- TIROS operational vertical sounder temperature retrievals. Lutz, H.J., et al. [1990, p.11,747-11,754, eng] **44-4258**
- Radiation**
- Two-stream multilayer, spectral radiative transfer model for sea ice. Perovich, D.K., [1989, 17p, eng] **44-313**
- Radiation measurements of snow season in 1988 in Sapporo. Kodama, Y., et al. [1988, p.27-33, jpn] **44-458**
- Snow accumulation in an alpine watershed, Sierra Nevada, CA. Elder, K., et al. [1989, p.56-63, eng] **44-549**
- Proceedings of the International Radiation Symposium, 1988. [1989, 653p, eng] **44-4040**
- See *also*: Gamma irradiation; Infrared radiation; Light (visible radiation); Microwaves; Neutron irradiation; Radio waves; Solar radiation; Thermal radiation; Ultraviolet radiation
- Radiation absorption**
- Hydrogen sulfide on ice: evidence from telescopic and laboratory infrared spectra. Nash, D.B., et al. [1989, p.454-457, eng] **44-42**
- Aerosol light absorption by soot in remote environments. Clarke, A.D., [1989, p.161-171, eng] **44-1950**
- Arctic haze effects determined from radiometry. Valero, F.P.J., et al. [1989, p.225-244, eng] **44-2177**
- Martian polar cap: radiative effects of ozone, clouds, and airborne dust. Lindner, B.E., [1990, p.1367-1379, eng] **44-2288**
- Frost wall shielding for inertial confinement fusion. Neely, H.H., et al. [1990, 100p, eng] **44-3771**
- Intrinsic photoconductivity of hexagonal ice. Khushnadinov, N.N., et al. [1990, p.401-408, eng] **44-3953**
- Thermal conditions over the Great Wall Station, summer 1987-1988. Bian, L., et al. [1990, p.73-81, chi] **44-4551**
- Radiation balance**
- Radiation balance of melting naleds. Deikin, B.N., [1989, p.73-79, rus] **44-151**
- Meteorological effects on snowmelt runoff, Caucasus. Ananicheva, M.D., et al. [1989, p.160-164, rus] **44-354**
- Arctic haze effects determined from radiometry. Valero, F.P.J., et al. [1989, p.225-244, eng] **44-2177**
- Annual and diurnal variation in radiation balance of ground surface at Kitami. Sado, K., et al. [1988, p.579-584, jpn] **44-2731**
- Lidar detection of leads in arctic sea ice. Schnell, R.C., et al. [1990, p.119-123, eng] **44-3833**
- Radiation and heat balances on alpine glaciers in China. Bai, C.Y., [1989, p.29-54, chi] **44-3883**
- Satellite data for calculating longwave radiation budgets. Gupta, S.K., et al. [1989, p.291-294, eng] **44-4043**
- Surface radiation budget components measured over arctic sea ice. Bauer, P., et al. [1989, p.295-297, eng] **44-4044**
- Energy balance in polar regions. Weller, G., et al. [1990, p.311-314, eng] **44-4216**
- Radiation measurement**
- See *also*: Radiometry
- Radio communication**
- Small energy systems for telecommunications equipment in cold climate remote areas. Kolousek, M., [1986, p.317-324, eng] **44-1455**
- Thermal insulation of radio relay stations in winter (Pt.2). Komukai, K., et al. [1989, p.551-556, jpn] **44-2914**
- Radio echo soundings**
- Equilibrium state of a glacier in China as calculated from its present characteristics. Cao, M.S., [1989, p.89-94, eng] **44-176**
- Airborne electromagnetic sensing of sea ice thickness. Becker, A., et al. [1987, 77p, eng] **44-207**
- Studies of Fridtjof Glacier in Spitsbergen in 1988. Glazovskii, A.F., et al. [1989, p.148-153, rus] **44-352**
- Possible radio-echo method of locating englacial and subglacial waterways. Kennett, M.J., [1989, p.135-139, eng] **44-562**
- Ice loss in the ablation area of a Himalayan glacier. Young, G.J., et al. [1989, p.289-293, eng] **44-592**
- Effective control of hail processes. Abshaev, M.T., [1989, p.81-89, rus] **44-871**
- Ice thickness of Sør Rondane glaciers. Declercq, H., et al. [1989, p.133-141, eng] **44-1811**
- Radio scattering of Antarctic Ice Sheet by airborne radio echo soundings. Uratsuka, S., et al. [1989, p.142-151, eng] **44-1812**
- Satellite radar altimetry over ice. Vol.2. Greenland. Zwally, H.J., et al. [1990, 82p, eng] **44-1824**
- Satellite radar altimetry over ice. Vol.4. Antarctica. Zwally, H.J., et al. [1990, 54p, eng] **44-1825**
- Satellite radar altimetry over ice. Vol.1. Greenland. Zwally, H.J., et al. [1990, 145p, eng] **44-1889**
- Topography and surface features of Larsen Ice Shelf. Ridley, J.K., et al. [1989, p.299-310, eng] **44-1890**

- Development of under snow radar. Sakamoto, Y., et al. [1985, p.407-412, jpn] **44-2336**
- Estimating sea ice thickness using data from impulse radar soundings. Kovacs, A., et al. [1989, 10p, eng] **44-2848**
- Radio echo sounding, north Victoria Land ice sheet. Engelhardt, H., et al. [1989, p.111-117, eng] **44-3050**
- Radio echo soundings and geothermy at Mt. Melbourne. Delisle, G., et al. [1989, p.435-453, eng] **44-3052**
- Meteorite finds near Frontier Mountain. Delisle, G., et al. [1989, p.483-513, eng] **44-3054**
- Remote-sensing studies of Kvitoyokulen, an ice cap on Kvitoya, north-east Svalbard. Bamber, J.L., et al. [1990, p.75-81, eng] **44-3725**
- Radio waves**
- Scattering and attenuation of radio waves in hail clouds. Abshaev, M.T., et al. [1989, p.76-81, rus] **44-870**
- Arctic marine transport and ancillary technologies. Frankel, E.G., [1988, p.100-129, eng] **44-1121**
- See *also*: Microwaves
- Radioactive age determination**
- Radiocarbon dating by accelerator mass spectrometry. Blake, W., Jr., [1989, p.59-74, eng] **44-109**
- C-14 chronology and snow-patch development in the Lac à l'Eau Claire area, northern Quebec. Mathieu, C., et al. [1987, p.97-108, fre] **44-898**
- Late Holocene fluctuations of the fiord glacier system in Icy Bay, Alaska, U.S.A. Porter, S.C., [1989, p.364-379, eng] **44-2009**
- Radiocarbon datings obtained by the Geochemistry of Permafrost Laboratory, USSR. Kostubevich, V.V., et al. [1988, p.143-145, rus] **44-2521**
- Last glaciation of Marvin Peninsula, northern Ellesmere Island, High Arctic, Canada. Lemmen, D.S., [1989, p.2578-2590, eng] **44-3342**
- Century old record of lead-210 fallout on the Greenland ice sheet. Nyamurkar, V.N., et al. [1990, p.29-38, eng] **44-3416**
- Pb(210) and Cs(137) chronology of sediments from small, shallow arctic lakes. Hermanson, M.H., [1990, p.1443-1451, eng] **44-3628**
- Radioactive fallout**
- See *also*: Fallout
- Radioactive labeling**
- See *also*: Isotopic labeling
- Radioactive wastes**
- Pb-210 in air and snow near nuclear research center. Parveen, N., et al. [1988, 16p, eng] **44-959**
- Radiocarbon dating**
- See *also*: Radioactive age determination
- Radiometers**
- See *also*: Radiation measuring instruments
- Radiometry**
- Microwave imagery of snow cover, upper Colorado River basin. Josberger, E.G., et al. [1989, p.73-84, eng] **44-1**
- Arctic sea ice characteristics inferred from satellite and buoy data. Barry, R.G., et al. [1989, p.35-44, eng] **44-29**
- East antarctic sea ice zone: ice characteristics and drift. Allison, I., [1989, p.103-115, eng] **44-301**
- Measurements of infrared emissivity of thin sea ice. Aota, M., et al. [1988, p.187-195, jpn] **44-739**
- Active and passive remote sensing of ice. Kong, J.A., [1989, 23p, eng] **44-856**
- Satellite monitoring of soil freeze-thaw boundary. Ulaby, F.T., et al. [1988, 7p, eng] **44-892**
- Surface aerosol measurements at Barrow during AGASP. II. Bodhaine, B.A., et al. [1989, p.213-224, eng] **44-2176**
- Arctic haze effects determined from radiometry. Valero, F.P.J., et al. [1989, p.225-244, eng] **44-2177**
- Review of signature studies for microwave remote sensing of snowpacks. Matzler, C., et al. [1989, p.253-265, eng] **44-2599**
- Microwave radiometry of snow. Hallikainen, M.T., [1989, p.267-275, eng] **44-2600**
- Microwave brightness temperatures of the Greenland Ice Sheet. Zhang, H., et al. [1989, p.277-287, eng] **44-2601**
- Microwave signatures of bare soil. Wegmüller, U., et al. [1989, p.307-316, eng] **44-2604**
- Using melting ice to teach radiometric dating. Wise, D.L., [1990, p.38-40, 69, eng] **44-2754**
- Attempt to interpret sea-ice features from the MOS-1 passive microwave data. Ono, N., [1989, p.103-109, jpn] **44-3129**
- Passive microwave remote sensing of sea ice thickness. Swift, C.T., [1989, p.461-462, eng] **44-3163**
- Satellite sensor estimates of northern hemisphere snow volume. Chang, A.T.C., et al. [1990, p.167-171, eng] **44-3352**
- Multisensor validation of satellite derived sea ice microwave images. Steffen, K., et al. [1990, p.75-82, eng] **44-3398**
- Classification of merged AVHRR and SMMR arctic data with neural networks. Key, J.R., et al. [1989, p.1331-1338, eng] **44-3777**
- Time-lapse motion study of sea ice in the Greenland Sea. Giverson, P., [1990, p.177-179, eng] **44-3845**

- SMMR observations of the sea ice regime in the Ross Sea, 1979-1985. Jacobs, S., et al. [1990, p.179-181, eng]. **44-3846**
- Sea ice conditions due to meteorological effects in the Canada Basin. Maslanik, J.A., et al. [1990, p.181-184, eng]. **44-3847**
- Validation of the SSM/I and AES/YORK algorithms for sea ice parameters. Bjerkelund, C.A., et al. [1990, p.206-208, eng]. **44-3851**
- Global snow variations derived from SMMR: preliminary results. Chang, A.T.C., et al. [1990, p.213-217, eng]. **44-3853**
- Antarctic ice sheet brightness temperature variations. Jezek, K.C., et al. [1990, p.217-223, eng]. **44-3854**
- Ice thickness and brightness temperature for sea ice. Eppler, D., et al. [1990, p.229-232, eng]. **44-3856**
- Airborne passive microwave observations of arctic sea ice. Comiso, J.C., et al. [1990, p.233-235, eng]. **44-3857**
- Cloud cover analysis with radiometer data. Key, J.R., [1990, p.761-767, eng]. **44-3873**
- High frequency dynamic response of the Canadian east coast seasonal sea ice zone. Nazarenko, D.M., [1989, p.74-81, eng]. **44-4000**
- Pattern recognition of polar cloud radiances. Ebert, E.E., [1989, p.184-187, eng]. **44-4042**
- Numerical modeling of passive microwave O2 observations over precipitation. Gasiewski, A.J., et al. [1990, p.217-235, eng]. **44-4128**
- Shipborne AVHRR-HRPT receiving and image processing system for polar research. Viehoff, T., [1990, p.877-886, eng]. **44-4282**
- Arctic ice classification using satellite microwave data. Comiso, J.C., [1990, p.13,411-13,422, eng]. **44-4545**
- Rafting**
See *ice rafting*
- Railroad cars**
Induction assembly for unloading frozen coal from freight cars. Koval'chuk, V.M., et al. [1988, p.67-74, rus]. **44-1501**
- Snow accretion experiments on hot metallic plate. Fujii, T., et al. [1985, p.513-515, jpn]. **44-2340**
- Railroad equipment**
Rail borne snow removal vehicle. Torres, W.R., [1988, 31p., eng]. **44-670**
- Induction assembly for unloading frozen coal from freight cars. Koval'chuk, V.M., et al. [1988, p.67-74, rus]. **44-1501**
- Economical approach to receiving coal by rail in the sub-arctic environment. Swigart, B., et al. [1986, p.45-56, eng]. **44-2188**
- Railroad tracks**
Blowing of snow by passing railroad cars. Imai, T., et al. [1989, p.215-219, eng]. **44-3302**
- Water sprinkling system for snow melting on railroad tracks. Sawase, K., [1989, p.136-142, eng]. **44-3303**
- Features of ballasting and straightening of railroad tracks. Lykov, V.G., et al. [1990, p.5-6, rus]. **44-4482**
- Railroad tunnels**
Ice reception suits roadheader down to the ground. Weber, B.H., [1989, p.19-21, eng]. **44-322**
- Ice formation in railroad tunnels. Okada, K., [1988, p.1-8, eng]. **44-1774**
- Lining for ice prevention in railroad tunnels. Okada, K., [1988, p.9-15, eng]. **44-1775**
- Controlling the thermal regime of tunnels in severe climatic conditions. Gendler, S.G., et al. [1990, p.18-22, rus]. **44-4483**
- Railroads**
Preventive heating of power lines of direct current contact nets. Golev, V.A., [1988, 77p., rus]. **44-70**
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- Electrical supply installations for the Baykal-Amur mainline. Darchiev, S.Kh., et al. [1989, 175p., rus]. **44-1826**
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- Engineering geological conditions of railroad construction in the upper Lena River Valley. Shevchenko, V.K., [1990, p.84-89, rus]. **44-4305**
- Naleds along a railroad. Efimov, I.U.G., et al. [1990, p.89-101, rus]. **44-4306**
- See *Baykal Amur railroad; Cable railways*
- Rain**
Modelling extreme effective precipitation. Bergström, S., et al. [1988, p.191-197, eng]. **44-248**
- Determination of nitrophenols in rain and snow. Alber, M., et al. [1989, p.540-545, eng]. **44-398**
- Eurasian snow cover and seasonal forecast of Indian summer monsoon rainfall. Bhanu Kumar, O.S.R.U., [1988, p.515-525, eng]. **44-1681**
- Estimating the effects of rain and snow on potential reactor accident consequences. ApSimon, H.M., et al. [1986, p.235-242, eng]. **44-2348**
- Two component mixing during acid anion leaching during rain-on-snow events. Jones, H.G., et al. [1989, p.239-250, eng]. **44-3038**
- Raindrops**
Perfectly round and clear ice pellet drops. Lenggenhager, K., [1989, p.234-236, ger]. **44-284**
- Estimation of rain and hail rates in mixed-phase precipitation. Balakrishnan, N., et al. [1990, p.565-583, eng]. **44-3283**
- Ravines**
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- Reclamation**
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- Recording instruments**
Measurements of falling attitudes of snowflakes using two video cameras. Muramoto, K., et al. [1990, p.95-99, eng]. **44-3549**
- Records (extremes)**
Climatology of statewide extreme temperatures during winter months in the coterminous United States. Parker, A.J., [1989, p.349-367, eng]. **44-2638**
- Recrystallization**
Crystal growth in deformed polycrystalline ice during stress relaxation. Mizuno, Y., [1989, p.1-12, jpn]. **44-3122**
- See *snow recrystallization*
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- Reflection**
Ground object spectral reflectance. Feng, X.Z., et al. [1988, p.146-151, chi]. **44-645**
- Multiple reflections across a linear discontinuity in surface albedo. Barker, H.W., et al. [1989, p.203-214, eng]. **44-759**
- Theoretical estimates of light reflection and transmission by spatially inhomogeneous and temporally varying ice covers. Perovich, D.K., [1990, p.45-49, eng]. **44-3816**
- Acoustics and morphology of undeformed sea ice. Jezek, K.C., et al. [1990, p.67-75, eng]. **44-3821**
- See *seismic reflection; Specular reflection*
- Reflectivity**
Remote sensing of snow in visible and near-infrared wavelengths. Dozier, J., [1989, p.527-547, eng]. **44-50**
- Low-relief topographic enhancement in a Landsat snow-cover scene. Eytan, J.R., [1989, p.105-118, eng]. **44-524**
- Spectral signature of alpine snow cover from the Landsat thematic mapper. Dozier, J., [1989, p.9-22, eng]. **44-1530**
- Comparison of *in situ* and Landsat derived reflectance of Alaskan glaciers. Hall, D.K., et al. [1989, p.23-31, eng]. **44-1531**
- Estimates of precipitation embryo densities using measurements from an aircraft radar. Mather, G.K., [1989, p.1089-1097, eng]. **44-2759**
- Multiparameter radar modeling and observations of melting ice. Vivekanandan, J., et al. [1990, p.549-564, eng]. **44-3282**
- Differential reflectivity radar hail measurement techniques. Aydin, K., et al. [1990, p.104-113, eng]. **44-3285**
- Comparison of *in situ* and satellite-derived reflectances of Forbidsel Glacier, Greenland. Hall, D.K., et al. [1990, p.493-504, eng]. **44-3350**
- Snow cover spectral reflection properties in sunlight. Günther, T., [1990, p.50-54, ger]. **44-3775**
- Radar reflectivity of Titan. Muhleman, D.O., et al. [1990, p.975-980, eng]. **44-4145**
- Diurnal patterns of the bi-directional reflectance of fresh-water ice. Leshkevich, G.A., et al. [1990, p.153-157, eng]. **44-4183**
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- Refractivity**
Refractive index structure parameter for a year over the frozen Beaufort Sea. Andreas, E.L., [1989, p.667-679, eng]. **44-2091**
- Refrigeration**
Technical and symposium papers. [1989, 1349p., eng]. **44-440**
- Theory of heat transfer-irreversible refrigeration plants. Bejan, A., [1989, p.1631-1639, eng]. **44-665**
- Study of flow boiling heat transfer with refrigerant mixtures. Jung, D.S., et al. [1989, p.1751-1764, eng]. **44-666**
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- Refuse**
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- Reinforced concretes**
Bond strength in reinforced concrete at low temperatures. Van der Veen, C., et al. [1989, p.573-582, eng]. **44-1117**
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- Durability of reinforced concrete in cold regions. Sakurai, H., et al. [1989, p.633-638, jpn]. **44-2924**
- Relaxation (mechanics)**
Ice sandwich experiments and the thermodynamic-rheological model of frost heave. Williams, P.J., et al. [1989, p.579-580, eng]. **44-943**
- See *ice relaxation*
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See *rock magnetism*
- Remote sensing**
Remote sensing of snow in visible and near-infrared wavelengths. Dozier, J., [1989, p.527-547, eng]. **44-50**
- Microwave imagery of snow cover, upper Colorado River basin. Josberger, E.G., et al. [1989, p.73-84, eng]. **44-114**
- Microwave emission properties of subzero underlying surfaces. Kondrat'ev, K.I.A., et al. [1989, p.67-70, rus]. **44-180**
- Development and performance of a Canadian automatic snow depth sensor. Goodison, B.E., et al. [1988, p.137-144, eng]. **44-243**
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- Giant icebergs of West Antarctica. Losev, K.S., [1989, p.132-134, rus]. **44-347**
- Spectral bidirectional reflectance of snow. Dozier, J., et al. [1988, p.87-92, eng]. **44-419**
- Radar altimetric studies of polar ice. Drinkwater, M.R., [1987, 231p., eng]. **44-438**
- Oceanic heat flux in the Fram Strait measured by a drifting buoy. Perovich, D.K., et al. [1989, p.995-998, eng]. **44-467**
- Western Snow Conference, 57th, 1989. [1989, 150p., eng]. **44-497**
- Remote sensing techniques for measuring supercooled water. Westwater, E.R., et al. [1989, 35p., eng]. **44-595**
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- Remote sensing and water resources. McKim, H.L., et al. [1987, p.186-190, eng]. **44-611**
- Satellite images of glacial regions in China. Shi, Y.F., et al. [1988, p.1-11, chi]. **44-629**
- Glacier features of Qomolangma Mt. using remote sensing. Cao, M.S., et al. [1988, p.15-20, chi]. **44-630**
- Landsat image of the Karakoram Mountains. Mi, D.S., et al. [1988, p.21-22, chi]. **44-631**
- Glacier surveys in Qinghai Province by remote sensing. Feng, X.Z., et al. [1988, p.23-28, chi]. **44-632**
- Snow survey of Qilian Mts. by remote sensing. Liu, Z.K., et al. [1988, p.29-39, chi]. **44-633**
- Remote sensing of snow cover and spring runoff. Qilian Mts. Zeng, Q.Z., et al. [1988, p.40-48, chi]. **44-634**
- Snow cover of the Heihe River in the Qilian Mts. Chen, X.Z., [1988, p.49-54, chi]. **44-635**
- Snow cover on the Heihe River in the Qilian Mts. Wang, J., [1988, p.55-63, chi]. **44-636**
- Runoff forecasting from snowmelt. Huanghe and Heihe rivers. Zhang, S.Y., et al. [1988, p.75-84, chi]. **44-638**
- Estimation of snow cover using photoelectric processing. Pu, Y.B., et al. [1988, p.85-93, chi]. **44-639**
- Discrimination between snow and clouds using remote sensing. Chen, X.Z., et al. [1988, p.94-99, chi]. **44-640**
- Snow cover mapping using Landsat data. Chen, X.Z., et al. [1988, p.100-105, chi]. **44-641**
- Infrared remote sensing in permafrost. Liang, F.X., et al. [1988, p.106-119, chi]. **44-642**
- Permafrost distribution in the Qilian Mts. region. Liang, F.X., et al. [1988, p.120-127, chi]. **44-643**
- Remote sensing data on permafrost. Feng, X.Z., et al. [1988, p.128-135, chi]. **44-644**
- Ground object spectral reflectance. Feng, X.Z., et al. [1988, p.146-151, chi]. **44-645**
- Yearbook, fiscal year 1988. [1989, 134p., eng]. **44-657**
- Remote sensing of global snowpack energy and mass balance. Benson, C.S., [1989, 11p., eng]. **44-714**
- Labrador ice margin experiment, 1987. Drinkwater, M.R., et al. [1989, p.335-342, eng]. **44-763**
- Synthetic aperture radar: remote sensing (Bibliography). [1989, 194p., eng]. **44-783**
- Microwave scattering models and basic experiments. Fung, A.K., [1989, 32p., eng]. **44-785**
- Effects of snow on landmarks in K(sub u) band SAR. Murray, M., [1989, 127p., eng]. **44-786**
- Electromagnetic induction remote sensing of sea ice thickness. Echert, D.C., [1986, 47p., eng]. **44-787**
- Active and passive remote sensing of ice. Kong, J.A., [1989, 23p., eng]. **44-845**
- Active and passive remote sensing of ice. Kong, J.A., [1988, 13p., eng]. **44-852**
- Active and passive remote sensing of ice. Kong, J.A., [1989, 23p., eng]. **44-856**

Remote sensing (cont.)

- Variability of the ambient noise field associated with the ice zone. Biggs, K.P., (1988, 112p., eng) **44-857**
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- Geographic information system for river basin. Merry, C.J., et al. (1987, p.265-269, eng) **44-947**
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- Remote sensing data acquisition, analysis and archival. Final report. Stringer, W.J., (1988, 61p., eng) **44-989**
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- Alaska collection SAR data summary. Gineris, D.H., et al. (1989, 55p., eng) **44-994**
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- Snow and ice: remote sensing applications in civil engineering. Östrem, G., (1985, p.151-163, eng) **44-1047**
- Bibliography on ice and fog: detection and warning systems. (1988, 47p., eng) **44-1082**
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- NASA sea ice and snow validation plan. Cavalieri, D.J., et al. (1987, 81p., eng) **44-1218**
- GEOSAT altimeter geophysical data record user handbook. Cheney, R.E., et al. (1987, 35p., eng) **44-1230**
- Arctic drifting buoy data 1979-1985. St. Martin, J.W., (1987, 126p., eng) **44-1232**
- Active microwave observations of sea ice and iceberg. Skriver, H., et al. (1986, p.13-24, eng) **44-1237**
- Potential of SAR in a snow and glacier monitoring system. Rott, H., et al. (1986, p.25-35, eng) **44-1238**
- Science plan for the Alaska SAR facility program. (1989, 87p., eng) **44-1242**
- Remote sensing of snow reflectance and snow cover characteristics. Dozier, J., et al. (1987, 93p., eng) **44-1245**
- Radar image processing of the internal structure of snowpack. Suzuki, M., et al. (1988, p.313-320, jpn) **44-1298**
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- Satellite data. Kempainen, H., et al. (1988, p.153-159, eng) **44-1433**
- Availability of Geosat data during the BEPERS Pilot Study. Ulander, L.M.H., (1988, p.161-165, eng) **44-1434**
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- Estimating snow cover parameters on mountain slopes. Golubev, V.N., et al. (1989, p.111-122, rus) **44-1579**
- Ice floe identification in satellite images. Banfield, J.D., et al. (1989, 35p., eng) **44-1599**
- Active and passive remote sensing of ice. Kong, J.A., (1987, 11p., eng) **44-1609**
- Remote sensing of earth terrain. Semiannual report, Mar.-Aug. 1987. Kong, J.A., (1987, 13p., eng) **44-1631**
- Optical method of determining snow moisture. Zalikhanov, M.Ch., et al. (1989, p.29-33, rus) **44-1780**
- Remote sensing of ice and cloud. Maslanik, J.A., et al. (1989, p.1691-1696, eng) **44-1814**
- Impact of land surface processes on climatic change. Kondrat'ev, K.I.A., (1989, p.1170-1189, eng) **44-1832**
- Remote sensing of snow and evapotranspiration. Schmugge, T., ed. (1985, 167p., eng) **44-1999**
- New techniques for slush ice run measurement in Poland. Dobrowolski, A., et al. (1989, p.46-54, eng) **44-2022**
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- Measurement of sea ice thickness using electromagnetic induction. Holladay, J.S., et al. (1990, p.309-315, eng) **44-2240**
- Airborne electromagnetic sensing of sea ice thickness. Final report. Becker, A., et al. (1988, 129p., eng) **44-2653**
- Collection of non-conus aircraft icing data. Engler, N.A., et al. (1988, 120p., eng) **44-2741**
- Possibility of determining winter sea ice characteristics from satellite IR and radar imaging data. Provorkin, A.V., (1989, p.68-74, rus) **44-2825**
- Satellite data collection platforms for temperature measurements. Daly, S.F., et al. (1989, 14p., eng) **44-2846**
- Estimating sea ice thickness using data from impulse radar soundings. Kovacs, A., et al. (1989, 10p., eng) **44-2848**
- Review of remote sensing capabilities in snow hydrology. Rangó, A., (1979, 10p., eng) **44-2950**
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- Greenland ice sheet: is it growing or shrinking. Douglas, B.C., et al. (1990, p.288-289, eng) **44-3067**
- Transit-Doppler measurements of the Filchner Ice Shelf motion in 1984. Ellmer, W., et al. (1987, p.399-410, ger) **44-3084**
- Attempt to interpret sea-ice features from the MOS-1 passive microwave data. Ono, N., (1989, p.103-109, jpn) **44-3129**
- Analysis and forecasting at the Naval Polar Oceanography Center. Hinsman, D.E., (1989, p.112-120, eng) **44-3142**
- Remote sensing of sea ice. Hawkins, J.D., (1989, p.121-124, eng) **44-3143**
- Polar lows. Fett, R.W., (1989, p.267-272, eng) **44-3153**
- Passive microwave remote sensing of sea ice thickness. Swift, C.T., (1989, p.461-462, eng) **44-3163**
- Effects of summer melt on calculation of sea ice concentration. Cavalieri, D.J., et al. (1990, p.5359-5369, eng) **44-3278**
- Remote sensing of atmospheric vapor fluxes. Uttal, T., et al. (1990, p.22-34, eng) **44-3289**
- Remote detection of aircraft icing. Decker, M.T., et al. (1986, 34p., eng) **44-3332**
- Marine biological assessment in the Arctic using remote sensing. Gower, J.F.R., et al. (1989, p.490-509, eng) **44-3432**
- Satellite remote sensing in Arctic for 1990's. Weeks, W.F., et al. (1989, p.510-530, eng) **44-3433**
- Remote sensing techniques by the Federal Republic of Germany. Kohnen, H., (1989, p.24-26, eng) **44-3445**
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- Remote sensing of saline ice covered with snow. Lohanick, A.W., (1990, p.61-67, eng) **44-3820**
- Lidar detection of leads in arctic sea ice. Schnell, R.C., et al. (1990, p.119-123, eng) **44-3833**
- Recent measurements of sea ice topography in the eastern Arctic. Krabill, W.B., et al. (1990, p.132-136, eng) **44-3836**
- Time-lapse motion study of sea ice in the Greenland Sea. Gloersen, P., (1990, p.177-179, eng) **44-3845**
- SMMR observations of the sea ice regime in the Ross Sea, 1979-1985. Jacobs, S., et al. (1990, p.179-181, eng) **44-3846**
- Sea ice conditions due to meteorological effects in the Canada Basin. Maslanik, J.A., et al. (1990, p.181-184, eng) **44-3847**
- NASA sea ice validation program for the DMSP SSM/I. Cavalieri, D.J., et al. (1990, p.197-203, eng) **44-3849**
- NASA SSM/I data processing and archiving of sea ice products. Morris, C.S., (1990, p.203-205, eng) **44-3850**
- Validation of the SSM/I and AES/YORK algorithms for sea ice parameters. Bjerkelund, C.A., et al. (1990, p.206-208, eng) **44-3851**
- Remote sensing of ocean surface winds with the special sensor microwave/imager (SSM/I). Goodberlet, M.A., et al. (1990, p.209-213, eng) **44-3852**
- Global snow variations derived from SMMR: preliminary results. Chang, A.T.C., et al. (1990, p.213-217, eng) **44-3853**
- Antarctic ice sheet brightness temperature variations. Jezek, K.C., et al. (1990, p.217-223, eng) **44-3854**
- Airborne sea ice thickness sounding. Kovacs, A., et al. (1990, p.225-229, eng) **44-3855**
- Ice thickness and brightness temperature for sea ice. Eppler, D., et al. (1990, p.229-232, eng) **44-3856**
- Airborne passive microwave observations of arctic sea ice. Comiso, J.C., et al. (1990, p.233-235, eng) **44-3857**
- Interaction of an ocean eddy with a marginal ice zone ocean front. Smith, D.C., IV, et al. (1990, p.278-281, eng) **44-3864**
- Applications of ISES for snow, ice, and sea state. A.T.C., et al. (1990, p.189-196, eng) **44-3949**
- Remote sensing of the polar oceans. Shuchman, R.A., et al. (1990, p.123-169, eng) **44-3977**
- Eastern Snow Conference, 46th, 1989. (1989, 307p., eng) **44-3993**
- Review of microwave remote sensing of snow. Heacock, T., et al. (1989, p.287-290, eng) **44-4029**
- Multiband imaging systems. McKim, H.L., et al. (1990, 10p., eng) **44-4058**
- Dynamical evaluation of the surface circulation using remote sensing of drifting ice floes. Larouche, P., et al. (1990, p.9755-9764, eng) **44-4335**
- BEPERS-88, a sea ice remote sensing experiment in the Gulf of Bothnia. Thompson, T., et al. (1989, p.1495-1507, eng) **44-4445**
- Arctic ice classification using satellite microwave data. Comiso, J.C., (1990, p.13,411-13,422, eng) **44-4545**
- Replicas**
See *falso*: Ice crystal replicas
- Reporting**
See *falso*: Ice reporting
- Rescue equipment**
Radar to find persons buried in snow. Sakamoto, Y., et al. (1987, p.168-172, jpn) **44-2535**
- Improvement of cold-proof performance of inflatable liferaft. Sakurai, A., et al. (1987, p.190-195, jpn) **44-2537**
- Cold tolerance of life rafts. Sakurai, A., et al. (1988, p.330-335, jpn) **44-2701**
- Multipurpose sled of the mountain rescue patrol. Emin, R., (1990, p.25-26, fre) **44-3415**
- Rescue operations**
Ice edge studies aboard *Polar Sea*, Vol 3: Personnel evacuation. St. John, J.W., et al. (1986, 88p., eng) **44-1077**
- Icebreaker *Vladivostok* rescue expedition. Chilingarov, A.I., (1989, p.10-16, rus) **44-2819**
- Ice conditions for navigation in the Pacific Ocean ice massif in winter. Smirnov, V.I., (1989, p.56-64, rus) **44-2823**
- Ships' speed in the Pacific ice massif in winter. Smirnov, V.I., (1989, p.64-68, rus) **44-2824**
- Evacuation and survival from offshore drilling and production units in the Bering, Chukchi, and Beaufort seas. Final report, Aug 1984-Oct 1985. Zahn, P.B., et al. (1987, var.p., eng) **44-3331**
- Research institutions**
See *falso*: Laboratories
- Research projects**
Annual report, 1988. (1988, 28p., eng) **44-98**
- International arctic research programs. Chung, J.S., comp. (1989, 74p., eng) **44-124**
- Government-sponsored arctic research in Canada. Loken, O.H., (1989, p.1-17, eng) **44-125**
- Danish arctic science and engineering. Taagholt, J., (1989, p.19-29, eng) **44-126**
- Arctic research programs in Sweden. Kommel, R., (1989, p.31-38, eng) **44-127**
- Arctic research program in Finland. Af Heurlin, M., et al. (1989, p.39-58, eng) **44-128**
- R&D in arctic technology: a Norwegian outlook. Milch, S., (1989, p.59-63, eng) **44-129**
- U.S. Federal arctic research. Devine, J.S., et al. (1989, p.65-74, eng) **44-130**
- Sermilik - a field station in eastern Greenland. Hasholt, B., (1988, p.87-93, eng) **44-238**
- Arctic data and information: issues and goals. (1989, 33p., eng) **44-268**
- Gorbachev's Murmansk speech: the Soviet initiative and Western response. Scrivener, D., (1989, 75p., eng) **44-315**
- British Antarctic Survey report for 1987-1988. (1988, 82p., eng) **44-324**
- Engineering geology studies on the National Petroleum Reserve in Alaska. Kachadorian, R., et al. (1988, p.899-922, eng) **44-393**
- International Glaciological Society: fifty years of progress. Wood, P., (1986, 128p., eng) **44-465**
- Arctic research of the United States, Vol 3. (1989, 71p., eng) **44-471**
- Arctic program, Office of Naval Research FY 87. Obrochia, R., ed. (1989, 206p., eng) **44-472**
- Arctic sciences program summary FY 88. Obrochia, R., ed. (1989, 130p., eng) **44-473**
- United States arctic research plan biennial revision: 1990-1991. Brown, J., ed. (1989, 72p., eng) **44-746**
- SHRP snow, ice contracts may aid snowfighters. Minsk, D., (1989, p.47-48, eng) **44-768**
- Swedish Polar Bibliography, 1945-1986 87. Wikström, C., comp. (1988, 270p., eng) **44-782**
- Controlling hail: status and prospects. Fedchenko, L.M., et al. (1989, p.5-19, rus) **44-807**
- Fiscal year 1986 program report: Alaska Water Research Center. Brown, E.J., (1987, 32p., eng) **44-1086**
- SHRP takes aim at snow, ice control. (1988, p.48-49, eng) **44-1089**
- JARE-28 winter activities, 1987. Ayukawa, M., (1989, p.234-268, jpn) **44-1471**
- JARE-30 field work in Sör Rondane Mountains, 1988-1989. Moriwaiki, K., et al. (1989, p.293-319, jpn) **44-1472**

- Information management-state of the art—the SHRP LTPP experience. Clarke, D.B., et al. [1989, p.118-127, eng] **44-1649**
- Research on machines and structures suitable for cold regions. Larionov, V.P., [1986, p.139-150, eng] **44-1730**
- Cold regions engineering research—strategic plan. Carlson, R.F., et al. [1989, p.172-190, eng] **44-1761**
- Searching for avalanche abstracting information. Balkarev, B.B., et al. [1989, p.84-92, rus] **44-1784**
- Harnessing science and technology for cold regions. [1989, 28p., eng] **44-1828**
- Exploration drilling and production in the Barents Sea. Löset, S., et al. [1990, p.25-30, eng] **44-2203**
- 1988-89 Australian Antarctic Research Program. Initial summary of research activity. [1989, 126p., eng] **44-2378**
- 1989-90 Australian Antarctic Research Program. Antarctic Treaty exchange information: Supplement A to particulars for Australian National Antarctic Research Expeditions. [1989, 262p., eng] **44-2379**
- Global commons: the arctic in world affairs. Young, O.R., [1990, p.52-61, eng] **44-2955**
- Jerry Brown urges cooperation. [1989, p.11, rus] **44-2956**
- Report of the U.S. Arctic Research Commission. 1988-1989. [1990, 40p., eng] **44-3110**
- Britain in the Arctic: a directory of activities and interests. [1990, 112p., eng] **44-3227**
- Ganovex, earth science program of the Federal Republic of Germany. Tessensohn, F., [1987, p.59-67, eng] **44-3244**
- Past as prologue: a history of arctic studies at Dartmouth College. Young, O.R., [1989, p.13-29, eng] **44-3290**
- Stefansson collection. Cronenwett, P.N., [1989, p.31-39, eng] **44-3291**
- Dartmouth in the north. [1989, p.71-77, eng] **44-3293**
- Operation Deep Freeze 89/90 end of season report. [1990, var. p., eng] **44-3327**
- British Antarctic Survey report for 1988-1989. [1989, 102p., eng] **44-3353**
- Arctic engineering research: initial findings and recommendations. [1990, 17p., eng] **44-3617**
- US global ice core research program West Antarctica and beyond. Grootes, P.M., et al. [1989, 32p., eng] **44-3738**
- Arctic-antarctic primary production and energy flow comparison studies. Fukuchi, M., et al. [1990, p.102-112, eng] **44-3743**
- Activities of the Alaska District Water Resources Division, U.S. Geological Survey, 1990. Snyder, E.F., comp. [1990, 21p., eng] **44-3806**
- Permafrost and terrain research and monitoring: Norman Wells pipeline—volume II: research and monitoring results—1983-1988. MacInnes, K.L., et al. [1990, 204p., eng] **44-3807**
- Introduction to Lanzhou Institute of Glaciology and Geocryology. Academia Sinica. [1988, 17p., eng] **44-3868**
- Field stations in arctic and subarctic Canada. Adams, P., [1989, p.303-305, eng] **44-4032**
- Conference of arctic and nordic countries on coordination of arctic research: Proceedings, Pt.1 and Pt.2. [1990, 366p. + 445p., eng] **44-4061**
- Arctic research and its role in the solution of global problems. Israel, I.U.A., et al. [1990, p.24-31, eng] **44-4062**
- Arctic climate and its variations: aspects of international cooperation. Voskresenskii, A.I., et al. [1990, p.153-163, eng] **44-4084**
- International project of the ozonosphere investigation on Heiss Island (HIP experiment). Khattatov, V.U., et al. [1990, p.224-226, eng] **44-4092**
- Overview of the current NASA program on aircraft icing research. Ranaudo, R.J., et al. [1988, p.1.977-1.994, eng] **44-4240**
- Sea ice observation tower in the Okhotsk Sea. Oshima, M., [1989, p.1266-1280, eng] **44-4429**
- Arctic research of the United States, Vol.4. [1990, 120p., eng] **44-4466**
- Kilpisjärvi project: case study of cold-regions research in Finland. McFadden, T., [1990, p.69-84, eng] **44-4488**
- See *falsoy*: Military research
- Research vessels
- See *falsoy*: Oceanographic ships
- Reservoirs
- Pangnirtung water reservoir: geotechnical aspects. Smith, L.B., et al. [1989, p.335-347, eng] **44-3111**
- Evaporation from reservoir equipped with snow fence. Sturges, D.L., [1989, p.9-20, eng] **44-499**
- Reservoir operations guides—application on three reservoirs. Marron, J.K., et al. [1989, p.69-78, eng] **44-506**
- Planned reservoir and flooding the tongue of a glacier. Funk, M., et al. [1989, p.76-81, eng] **44-552**
- Hydrological changes of the Rhône River. Vivian, H., [1989, p.57-77, eng] **44-1250**
- External water exchange in lakes of the USSR. Sorokin, I.N., [1988, 144p., rus] **44-1500**
- Water flow into reservoirs of large hydroelectric plants. Dement'ev, N.F., et al. [1988, p.58-63, eng] **44-1836**
- Ice cover effect on the hydraulics of impoundment reservoirs. Majewski, W., [1987, 132p., pol] **44-1940**
- Water temperature and ice cover in the impounding reservoir. Bagińska, M., et al. [1989, p.1-14, eng] **44-2018**
- Ice release from a reservoir. Bakonyi, P., [1989, p.15-25, eng] **44-2019**
- Model studies on ice control structures in the Dunakiliti reservoir. Décsi, E., et al. [1989, p.36-45, eng] **44-2021**
- Some problems of the ice cover formation in the Włocławek reservoir. Grzes, M., [1989, p.76-92, eng] **44-2025**
- Thermal and ice regimes of reservoirs and basins of power plants. Shatalina, I.N., [1989, p.213-221, eng] **44-2037**
- Forecasting ice cover load capacity, ice drift, and ice clearing in reservoirs. Lobovikova, Z.P., [1989, p.48-51, rus] **44-2929**
- Surface runoff of mountain reservoirs in permafrost zones. Boiarintsev, E.L., et al. [1989, p.71-82, rus] **44-2930**
- Accumulation of water in the ice cover of the Krasnoyarsk reservoir. Kosmakov, I.V., et al. [1989, p.69-80, rus] **44-2935**
- Calculating the water surface temperature of reservoirs. Vuglinskii, V.S., [1989, p.101-119, rus] **44-4410**
- Residential buildings
- Tracer gas measurement of air exchange in buildings. Flanders, S.N., et al. [1989, p.433-444, eng] **44-1358**
- Resins
- Freeze-thaw test of rock samples from Dunhuang Cave. Fukuda, M., et al. [1988, p.223-230, jpn] **44-742**
- Resources
- See *falsoy*: Natural resources
- Retention
- See *falsoy*: Snow retention; Water retention
- Revegetation
- Establishment of *Salix alaxensis* on a gravel pad in arctic Alaska. Bishop, S.C., et al. [1989, p.575-583, eng] **44-321**
- C-14 chronology and snow-patch development in the Lac à l'Eau Claire area, northern Quebec. Mathieu, C., et al. [1987, p.97-108, fre] **44-898**
- Recovery of mountain tundra with unsorted circles after a fire. Pavlov, B.A., [1989, p.51-59, eng] **44-1002**
- Afforestation at the full-depth avalanche site. Shimizu, H., et al. [1986, p.290-294, jpn] **44-2471**
- Quaternary deglaciation and reforestation of Glacier National Park. Carrara, P.E., [1989, 64p., eng] **44-4257**
- Ecological protection of pipeline routes, European North. Akul'shina, N.P., et al. [1989, p.65-72, rus] **44-4513**
- Permafrost preservation during construction of oil and gas facilities. Masalkin, S.D., et al. [1989, p.134-139, rus] **44-4525**
- Tundra re-cultivation. Archegova, I.B., et al. [1989, p.139-143, rus] **44-4526**
- See *falsoy*: Introduced plants
- Rheology
- C-band SAR observations of marginal ice zone rheology in the Labrador Sea. Drinkwater, M.R., et al. [1989, p.522-534, eng] **44-406**
- Ground freezing, 88: Proceedings. Vol.2. [1989, p.407-593, eng] **44-915**
- General report on mechanical properties of frozen soil. Andersland, O.B., [1989, p.433-441, eng] **44-919**
- State of the art: mechanical properties of frozen soil. Sadovskii, A.V., et al. [1989, p.443-463, eng] **44-920**
- Frozen soil deformation and failure under different loading. Vialov, S.S., et al. [1989, p.465-471, eng] **44-921**
- General report on engineering design. Gallavresi, F., [1989, p.477-479, eng] **44-922**
- General report on case histories. Gallavresi, F., [1989, p.509-511, eng] **44-927**
- Experimental studies on reducing methods of uplift force to a steel pipe. Nakagawa, S., et al. [1989, p.565-566, eng] **44-937**
- Ice sandwich experiments and the thermodynamic-rheological model of frost heave. Williams, P.J., et al. [1989, p.579-580, eng] **44-943**
- Arctic ice-ocean dynamics. Hibler, W.D., III, [1989, p.47-91, eng] **44-983**
- Volume changes accompanying creep of frozen soil. Knutsson, S., [1988, p.477-487, eng] **44-1165**
- Experimental determination of pore pressure development in a thawing soil. Axelsson, K., et al. [1988, p.489-495, eng] **44-1166**
- Crater relaxation on Ganymede: implications for ice rheology. Hillgren, V.J., et al. [1989, p.1339-1342, eng] **44-1848**
- Sedimentation beneath ice shelves—the view from ice stream B. Alley, R.B., et al. [1989, p.101-120, eng] **44-1943**
- Heaving forces with regard to rheological properties of freezing ground. Kononov, A.A., [1989, p.96-101, rus] **44-2158**
- Raised and unventilated pile foundation in permafrost. Li, Y.W., et al. [1989, p.167-171, chi] **44-2411**
- Glacier's bottom conditions, rheology, and stationary ice cover flow. Larina, T.B., [1989, p.73-79, rus] **44-3496**
- Iceberg outflow and glaciation mass balance on King George I. Govorukha, L.S., [1989, p.92-96, rus] **44-3498**
- Characteristic features of freezing of aqueous solutions. Lozinskii, V.I., et al. [1990, p.592-596, eng] **44-3596**
- In situ permafrost creep, Melville Island, and implications for global change. Bennett, L.P., et al. [1990, p.119-123, eng] **44-3652**
- Seasonal and climatic warming effects on pile creep in permafrost. Nixon, J.F., [1990, p.335-340, eng] **44-3679**
- Pile settlement in saline permafrost—a case history. Miller, D.L., et al. [1990, p.371-378, eng] **44-3684**
- Simulation of the ice ridging process. Hopkins, M.A., et al. [1990, p.152-156, eng] **44-3840**
- Cavitating fluid sea ice model. Flato, G.M., et al. [1990, p.239-242, eng] **44-3858**
- Sensitivity studies with a sea ice-mixed layer-pycnocline model in the Weddell Sea. Owens, W.B., et al. [1990, p.9527-9538, eng] **44-4331**
- See *falsoy*: Plastic flow
- Ridges
- See *falsoy*: Pressure ridges
- Rime
- See *falsoy*: Hoarfrost
- River banks
- See *falsoy*: Banks (waterways)
- River basins
- Analysis of the water balance and water resources in the mountainous Heihe River basin. Yang, Z.N., [1989, p.53-59, eng] **44-172**
- Groundwater regime and runoff in forests and swamps in Siberia. Konstantinov, V.D., [1986, p.10-16, eng] **44-316**
- Hydrologic modeling with remotely sensed data. Kite, G., [1989, p.1-8, eng] **44-498**
- Glacial sediment and hydro-electric power. Bogen, J., [1989, p.6-11, eng] **44-538**
- Snow cover, snowmelt and runoff in the Himalayan river basins. Dey, B., et al. [1988, 37p., eng] **44-624**
- Snow cover of the Heihe River in the Qilian Mts. Chen, X.Z., [1988, p.49-54, chi] **44-635**
- Snow cover on the Heihe River in the Qilian Mts. Wang, J., [1988, p.55-63, chi] **44-636**
- Estimation of snow cover using photoelectric processing. Pu, Y.B., et al. [1988, p.85-93, chi] **44-639**
- Geographic information system for river basin. Merry, C.J., et al. [1987, p.265-269, eng] **44-947**
- Hydrological changes of the Rhône River. Vivian, H., [1989, p.57-77, eng] **44-1250**
- Glaciers, snow cover, and avalanches in the mountains of Kazakhstan. Gorbunov, A.P., ed. [1989, 224p., rus] **44-1384**
- Volume of glacial runoff in the Balkhash-Alakul' basin. Tokmagambetov, G.A., et al. [1989, p.47-68, rus] **44-1388**
- Water balance of the Tekes River basin. Sosedov, I.S., et al. [1989, p.151-167, rus] **44-1356**
- Properties of surface runoff in the High Arctic. Cogley, J.G., [1975, 358p., eng] **44-1793**
- Pleistocene glaciations in the upper and middle Kolyma drainage basin. Voskresenskii, S.S., et al. [1989, p.232-238, rus] **44-1927**
- Model studies on ice control structures in the Dunakiliti reservoir. Décsi, E., et al. [1989, p.36-45, eng] **44-2021**
- Effect of karst on water resources in the Severskiy Donets basin. Gopchenko, E.D., et al. [1988, p.82-89, rus] **44-2127**
- Floods and droughts in Labe River basin—the hydrograph shape. Buchtele, J., [1989, p.133-142, eng] **44-2191**
- Hydrologic effects of climate change in the Delaware River basin. McCabe, G.J., Jr., et al. [1989, p.1231-1242, eng] **44-3114**
- Simulation of runoff and nitrate transport from mixed basins in Sweden. Brandt, M., [1990, p.13-34, eng] **44-3982**
- Effects of climate change on a river basin in California. Lettenmaier, D.P., et al. [1989, p.1-11-52, eng] **44-4249**
- Permafrost in river basins. An, V.V., et al. [1990, p.101-105, rus] **44-4307**
- See *falsoy*: Watersheds
- River crossings
- Winter bridging exercise on thick ice: Fort McCoy, Wisconsin, 1988. Coutermarsh, B.A., [1990, 24p., eng] **44-3957**
- See *falsoy*: Bridges; Ice crossings
- River deposits
- See *falsoy*: Alluvium
- River flow
- Effects of an ice cover on a backwater or M-1 profile. Santeford, H.S., et al. [1988, p.303-312, eng] **44-257**
- Effects of interbasin transfer on streamflow regimes, northwestern Ontario, Canada. Woo, M.K., et al. [1988, p.331-341, eng] **44-260**
- Hydrology of the Biafo Glacier, Karakoram range, Himalaya Mts. Hewitt, K., et al. [1989, p.103-108, eng] **44-556**

River flow (cont.)

- Perturbation solution of the flood problem. Discussion and author's reply. Ferriek, M.G., [1988, p.346-349, eng] **44-612**
- Snowmelt runoff of the Heihe River in the Qilian Mts. Feng, X.Z., et al. [1988, p.64-74, chj] **44-637**
- Runoff forecasting from snowmelt. Huanghe and Heihe rivers. Zhang, S.Y., et al. [1988, p.75-84, chj] **44-638**
- Boundary layer under fast ice, Hudson Bay, Canada. Shirasawa, F., et al. [1988, p.213-221, jpn] **44-741**
- Effect of an ice jam on the morphology of a river channel confluence. Bergeron, N., et al. [1988, p.191-196, fre] **44-749**
- Hydrological changes of the Rhône River. Vivian, H., [1989, p.57-77, eng] **44-1250**
- Lower Rhine: geomorphological changes. Van Uik, G., et al. [1989, p.167-182, eng] **44-1251**
- Hydraulic characteristics of the Knik-Matanuska River estuary, Alaska. Lipscomb, S.W., [1989, 52p., eng] **44-1860**
- Calculating river flow formation in a forest drainage area. Nazarov, N.A., et al. [1988, 107p., rus] **44-1883**
- Study on jokulhlaups (glacier outburst floods) of the Yarkant River. Chen, Y.N., et al. [1989, p.169-177, eng] **44-3167**
- Effect of water transfer on temperature and ice regime. Tesaker, E., [1988, p.89-98, eng] **44-3318**
- River temperature downstream from a dam and effect on ice. Gosink, J.P., [1986, p.979-983, eng] **44-3410**
- Report on measurement of riverbed waves during snowmelt runoff. Nakayama, H., et al. [1987, p.423-428, jpn] **44-3517**
- Observations of winter flow. Part 1. Fujita, N., et al. [1987, p.495-500, jpn] **44-3587**
- Report on improving the accuracy of winter flow observations. Hiragaki, T., et al. [1989, p.39-44, jpn] **44-3588**
- Simulation of oil slicks in rivers and lakes. Shen, H.T., et al. [1990, 29p., eng] **44-3736**
- Ice cover effect on river flow. Ashton, G.D., [1990, 24p., eng] **44-3753**
- Meltwater runoff into rivers from glaciers in China. Yang, Z.N., [1989, p.187-204, chj] **44-3891**
- Detection of coarse sediment movement using radio transmitters. Chacho, E.F., Jr., et al. [1989, p.367-373(B), eng] **44-3985**
- Flow resistance under an ice cover. Pavlov, S.I.A., et al. [1988, p.28-33, rus] **44-4220**
- Simulation of hydraulics and thermal-ice regimes in river networks. Gunaratna, P.P., [1990, 274p., eng] **44-4284**
- Forecasting of water discharge for the upper Amur in the period of ice breakup. Buzin, V.A., [1989, p.81-86, rus] **44-4407**
- See *also*: Runoff; Stream flow
- River ice**
- Minimization of frazil-ice production by river flow regulation. Jain, S.C., et al. [1989, p.1256-1274, eng] **44-120**
- Northern lakes and rivers. Mackay, W.C., ed. [1989, 112p., eng] **44-137**
- Ice break-up on northern rivers, the Liard River as an example. Prowse, T.D., [1989, p.24-42, eng] **44-139**
- Applied hydrology in the development of northern basins. [1988, 347p., eng] **44-232**
- Computer-generated graphics of river ice conditions. Biello, M.A., et al. [1988, p.211-219, eng] **44-250**
- Development of a dynamic ice breakup control method for the Connecticut River near Windsor, Vermont. Ferriek, M.G., et al. [1988, p.221-233, eng] **44-251**
- Predicting river ice breakup using hydrometric station records. Forsius, J., [1988, p.235-243, eng] **44-252**
- Numerical simulation of ice cover formation in rivers. Finnish River Ice Project. Mannila, M., et al. [1988, p.253-267, eng] **44-254**
- Strength and energy balance of decaying river ice. Prowse, T.D., et al. [1988, p.293-301, eng] **44-256**
- Framework for control of dynamic ice breakup by river regulation. Ferriek, M.G., et al. [1989, p.79-92, eng] **44-613**
- Time estimation for maximum supercooling in dynamic frazil ice formation. Daly, S.F., et al. [1989, 13p., eng] **44-776**
- Cryogenic sampling of frazil ice deposits. Chacho, E.F., Jr., et al. [1989, 6p., eng] **44-778**
- Ice observations on the Allegheny and Monongahela rivers. Biello, M.A., et al. [1988, 43p., eng] **44-800**
- Mathematical model for river ice processes. Lal, A.M.W., [1989, 243p., eng] **44-970**
- Dynamic transport of river ice. Tsai, S.M., [1989, 198p., eng] **44-976**
- Mass balance of the Korzhenevskii glacier. Fedulov, I.A., et al. [1989, p.38-47, rus] **44-1387**
- Winter habitats of salmon and trout. Calkins, D.J., [1989, 9p., eng] **44-1483**
- River-ice mounds on Alaska's North Slope. Arcone, S.A., et al. [1989, p.288-290, eng] **44-1558**
- Ice regime of rivers in the USSR. Donchenko, R.V., [1987, 246p., rus] **44-1718**
- Influence of vessel movements on stability of restricted channels. Hochstein, A.B., et al. [1989, p.444-465, eng] **44-1770**
- Proceedings. [1989, 245p., eng] **44-2017**
- Ice release from a reservoir. Bakonyi, P., [1989, p.15-25, eng] **44-2019**
- Research on ice problems related to the operation of hydro power in Sweden. Billfalk, L., [1989, p.26-35, eng] **44-2020**
- New techniques for slush ice run measurement in Poland. Dobrowolski, A., et al. [1989, p.46-54, eng] **44-2022**
- Changes of the ice thermal regime in the river caused by heated water discharges. Dobrowolski, A., et al. [1989, p.55-65, eng] **44-2023**
- Inner structures and surface morphology of ice jams. Grzes, M., [1989, p.66-75, eng] **44-2024**
- Study of instability phenomena on ice-water interfaces. Kolodko, J., [1989, p.107-115, eng] **44-2027**
- Influence of some environmental factors on the evolution of river ice covers. Kolodko, J., [1989, p.116-121, eng] **44-2028**
- Influence of heated water discharges on ice phenomena in open channels. Loose, F., [1989, p.122-133, eng] **44-2029**
- Ice problems and their solution on Czechoslovak rivers. Matoušek, V., [1989, p.168-178, eng] **44-2033**
- Method of study and analysis of ice jam development. Mayer, L., [1989, p.179-188, eng] **44-2034**
- Model study of a floating ice barrier. Molnár, L., [1989, p.189-198, eng] **44-2035**
- Effect of Danube dams on ice regime. Starosolszky, O., [1989, p.222-232, eng] **44-2038**
- Ice problems and ice research in Norway. Tesaker, E., [1989, p.233-245, eng] **44-2039**
- Calculation and forecasting of ice conditions on the Oder. Freydank, E., [1986, 53p., ger] **44-2042**
- Tree damage from river ice along the Grande Ronde River in Oregon. Filip, G.M., et al. [1989, p.211-213, eng] **44-2278**
- On the design of bridge for river ice sheet (1). Hara, F., et al. [1986, p.185-191, jpn] **44-2462**
- Study on bridge design for frozen rivers. Pt.2. Hara, F., et al. [1987, p.318-321, jpn] **44-2545**
- Ice conditions along Illinois Waterway, 1972-1985. Gatto, L.W., [1989, 112p., eng] **44-2631**
- On the design of bridge for river ice sheet (3). Hara, F., et al. [1988, p.314-321, jpn] **44-2699**
- Freezeup dynamics of a frazil ice screen. Axelsson, K.D., [1990, 8p., eng] **44-2762**
- Natural cold. Poplavskii, V.A., [1989, 171p., rus] **44-2796**
- Bridge design for frozen rivers (Pt.4). Hara, F., et al. [1989, p.394-403, jpn] **44-2905**
- Modelling water temperature beneath river ice covers. Marsh, P., [1990, p.36-44, eng] **44-3000**
- In-situ sampling and characterization of frazil ice deposits. Lawson, D.E., et al. [1990, p.193-205, eng] **44-3294**
- Technical measures for reduction of ice damage. Carstens, T., et al. [1987, p.231-240, eng] **44-3314**
- Effect of water transfer on temperature and ice regime. Tesaker, E., [1988, p.89-98, eng] **44-3318**
- River temperature downstream from a dam and effect on ice. Gosink, J.P., [1986, p.979-983, eng] **44-3410**
- Observations of winter flow. Part 1. Fujita, N., et al. [1987, p.495-500, jpn] **44-3587**
- Fracture and breakup of river ice cover. Beltaos, S., [1990, p.173-183, eng] **44-3702**
- Ice cover effect on river flow. Ashton, G.D., [1990, 24p., eng] **44-3753**
- Salmon River ice jam control studies: interim report. Axelsson, K.D., et al. [1990, 8p., eng] **44-3754**
- Ice thickness data - winter 1986-1987. [1990, 59p., eng] **44-3773**
- Problems of modern hydrology. Shiklomanov, I.A., ed. [1989, 327p., rus] **44-3908**
- Ice jams on rivers: methods of study, calculation and forecasting. Buzin, V.A., et al. [1989, p.220-231, rus] **44-3913**
- Eastern Snow Conference, 46th, 1989. [1989, 307p., eng] **44-3993**
- Premature breakup of river ice cover. Abdel-Zaher, A.K., et al. [1989, p.59-73, eng] **44-3999**
- Ice breakup of the Nashua River, New Brunswick. Prowse, T.D., et al. [1989, p.142-155, eng] **44-4007**
- Failure modes observed during river ice breakup. Prowse, T.D., et al. [1989, p.247-241, eng] **44-4020**
- Hovercraft trials on Song-Hua River. Zhao, J., et al. [1989, p.69-75, eng] **44-4136**
- Simulation of hydraulics and thermal-ice regimes in river networks. Gunaratna, P.P., [1990, 274p., eng] **44-4284**
- Origin of the chemical composition of the ice in the Amur River. Shesterkin, V.P., [1990, p.3-12, rus] **44-4287**
- Change in the ice regime of the lower Syrdarya due to runoff diversion. Galperin, R.L., [1988, p.71-79, rus] **44-4318**
- Calculating the ice regime of rivers and channels. Galperin, R.L., [1988, p.135-147, rus] **44-4320**
- Studies, calculations and predictions of the ice and thermal regime of surface waters. Buzin, V.A., ed. [1989, 120p., rus] **44-4398**
- Study on ice phenomena using hydraulic models of river sections. Bolotnikov, G.I., [1989, p.3-17, rus] **44-4399**
- Calculating the breakup of a river ice cover. Kozitskii, I.E., [1989, p.17-28, rus] **44-4400**
- Statistical forecasting of river ice conditions. Shanozhkin, S.V., et al. [1989, p.86-95, rus] **44-4408**
- Ice force measurements on a bridge pier in a small river. Sodhi, D.S., et al. [1989, p.1419-1427, eng] **44-4439**
- Radar surveying of the bottom surface of ice covers. Arcone, S.A., et al. [1990, p.30-39, eng] **44-4468**
- Ice jams on rivers. Kostelianski, B.A., [1990, p.18-20, rus] **44-4479**
- Rivers**
- Relationship between ground and river waters of the Lral naled belt. Oberman, N.G., [1989, p.64-73, rus] **44-150**
- Losses of winter river runoff in the formation of ice cover. Markov, M.L., [1989, p.79-86, rus] **44-152**
- River runoff during felling periods in a permafrost region. Vasilenko, N.G., et al. [1989, p.92-98, rus] **44-154**
- Saint Mary's River-Little Rapids cut ice boom. [1980, 63p., eng] **44-1633**
- Ice regime of rivers in the USSR. Donchenko, R.V., [1987, 246p., rus] **44-1718**
- Estimating maximum spring runoff of rivers and intermittent streams. Fomenko, I.A., et al. [1988, p.19-33, rus] **44-2126**
- Spring runoff formation in small rivers in forest areas. Pavlenko, G.V., et al. [1988, p.114-119, rus] **44-2128**
- River breakthrough and geomorphic changes in a permafrost environment. Mackay, J.R., et al. [1989, p.171-184, eng] **44-2620**
- Analysis of control sites: limnology and glaciology. Final report. Young, T.C., et al. [1979, 160p., eng] **44-2742**
- Characteristics of the freezeup and breakup of rivers in Kamchatka and Sakhalin. Lobovikova, Z.P., [1989, p.100-101, rus] **44-2931**
- Analysis of a short pulse radar survey of riverbeds along the Mississippi River. Arcone, S.A., [1989, 20p., eng] **44-3199**
- Water sampling stations in AK as of Sep. 1988. Still, P.J., et al. [1989, 189p., eng] **44-3737**
- See *also*: Glacial rivers; Icebound rivers; Streams
- Road icing**
- Prediction of ice formation on motorways in Britain. Thornes, J.E., [1984, 392p., eng] **44-202**
- Improving the prevention of icing of asphalt-concrete pavements. Mikhailov, A.V., et al. [1987, p.9-11, rus] **44-318**
- Icing risks on roads built with slag. Gustafson, K., [1988, 75p., swc] **44-623**
- Chemistry of deicing roads: penetrating the ice. Frost, S.E., et al. [1988, 27p., eng] **44-626**
- SHRP snow, ice contracts may aid snowfighters. Minsk, D., [1989, p.47-48, eng] **44-768**
- Frost heave control with buried insulation. Interim report. Ardani, A., [1987, 49p., eng] **44-891**
- Road ice early warning system. Balgowan, R.M., [1988, 48p., eng] **44-958**
- Modelling of local climate for prediction of road slipperiness. Bogren, J., et al. [1989, p.147-164, eng] **44-980**
- SHRP takes aim at snow, ice control. [1988, p.48-49, eng] **44-1089**
- Preliminary performance and benefit analysis of the UK national road ice prediction system. Thornes, J.E., [1989, p.93-99, eng] **44-1468**
- Degradation of pavements by antifreezes. Dou, S., [1985, p.289-292, jpn] **44-2327**
- Structures and properties of snow and ice on roads. Maeno, N., et al. [1986, p.445-450, jpn] **44-2485**
- Deicing measures of road surface in expressways. Murakami, M., et al. [1986, p.451-456, jpn] **44-2486**
- Temperature distribution in pavement with heat source. Moriyoshi, A., et al. [1986, p.601-605, jpn] **44-2505**
- Ablation process of snow and ice on roads. Naruse, R., et al. [1987, p.151-154, jpn] **44-2531**
- Heat balance of snow and ice on roads. Ishikawa, N., et al. [1987, p.155-158, jpn] **44-2532**
- New classification of snow and ice on roads. Maeno, N., [1987, p.159-162, jpn] **44-2533**
- Low temperature embrittlement of asphalt. Moriyoshi, A., et al. [1987, p.477-479, jpn] **44-2564**
- Surface wear properties of asphalt mixtures with vermiculite. Kaga, S., et al. [1987, p.480-486, jpn] **44-2565**
- Proceedings. [1988, 676p., jpn] **44-2666**
- Development of sensor detected road surface conditions. Masuda, H., et al. [1988, p.164-169, jpn] **44-2678**
- Road deicing chemicals with corrosion inhibitors. Santoki, E., et al. [1988, p.245-248, jpn] **44-2692**
- Skid resistance of roads using chemical ice prevention. Murakami, M., et al. [1988, p.249-254, jpn] **44-2693**
- View of power control for road heating system. Sugawara, N., et al. [1988, p.366-371, jpn] **44-2705**
- Research on the depth of frost penetration of road-heating section. Ueda, H., et al. [1988, p.372-380, jpn] **44-2706**
- Save energy of road-heating. Hasegawa, H., et al. [1988, p.381-386, jpn] **44-2707**

- Heat pipe road heating system by using a hot spring waste water. Goto, S., et al. [1988, p.387-392, jpn] **44-2708**
- Heat pump road heating using waste heat from subways. Kobayashi, Y., et al. [1988, p.393-398, jpn] **44-2709**
- Road snow melting by gas in Sapporo. Shibuya, K., et al. [1988, p.399-404, jpn] **44-2710**
- Low cost road heating in Sapporo. Ibatani, S., et al. [1988, p.405-411, jpn] **44-2711**
- Asphalt with synthetic zeolite admixture. Moriyoshi, A., et al. [1988, p.497-501, jpn] **44-2717**
- Road traffic information system in winter on the route 230. Miyamoto, I., et al. [1988, p.646-652, jpn] **44-2738**
- Proceedings. [1989, 645p., jpn] **44-2859**
- Local road heating for the slope intersection. Suzuki, Y., et al. [1989, p.189-194, jpn] **44-2878**
- Characteristics of heat balance on snow-accumulated roads. Takahashi, S., et al. [1989, p.195-198, jpn] **44-2879**
- On surface temperatures of a road in cold region. Shimizu, M., et al. [1989, p.199-203, jpn] **44-2880**
- Road heating by heat pumps using waste heat from subway. Kobayashi, Y., et al. [1989, p.259-264, jpn] **44-2887**
- New control method for road heating (field test at Jozankel). Kobayashi, Y., et al. [1989, p.265-270, jpn] **44-2888**
- Road heating by heat pump with air heat source. Shibuya, K., et al. [1989, p.271-276, jpn] **44-2889**
- Studies on a practical use of pavement freezing detector. Takeichi, K., et al. [1989, p.579-584, jpn] **44-2919**
- Road surface temperature monitor. Asayama, M., [1989, p.585-589, jpn] **44-2920**
- Pavement temperature distribution and frost countermeasures. Takeichi, K., et al. [1986, p.67-107, jpn] **44-3175**
- Pavement temperature distribution and frost countermeasures. Takeichi, K., et al. [1987, p.169-212, jpn] **44-3177**
- Macromodel for road surface conditions during wintertime: initial results. Möller, S., [1989, 42p. + ap., swe] **44-3200**
- Verglinit evaluation (Boulder). Final report. Kiljan, J., [1989, 21p. + appends., eng] **44-3337**
- Frost heave prevention for road pavements in mountains. Fukuda, M., et al. [1988, p.25-30, jpn] **44-3437**
- Frost depths of roads in Tohoku area. Yanagisawa, E., et al. [1989, p.35-39, jpn] **44-3438**
- Frost damage to roads in Hokkaido. Suzuki, T., et al. [1989, p.65-70, jpn] **44-3442**
- Survey of freezing depth throughout Hokkaido. Saito, T., et al. [1987, p.123-128, jpn] **44-3515**
- On-site studies to select methods of pavement repair. Yamazaki, A., et al. [1989, p.57-62, jpn] **44-3564**
- Countermeasures against frost heave on national highways. Saito, T., et al. [1989, p.63-68, jpn] **44-3565**
- Performance of nonmetal tire chains in Hokkaido. Saito, H., et al. [1989, p.97-102, jpn] **44-3567**
- Chemically breaking the bond between ice and road surfaces. Frost, S.E., et al. [1987, 21p., eng] **44-3767**
- Thermal infrared survey of winter trails at Fort Wainwright. Collins, C.M., et al. [1990, 16p., eng] **44-3988**
- Simulation of the effects of frost on the performance of roads subjected to salt deicing. Padilla, F., et al. [1989, p.257-261, fre] **44-4024**
- Comprehensive technology of snow removal from city streets. Karaban, G.L., et al. [1990, 156p., rus] **44-4119**
- Evaluating the economic efficiency of road icing forecasts. Braginskaya, L.L., et al. [1989, p.38-43, rus] **44-4323**
- GFS 2000 icing detection system. Marc, J.L., [1990, p.30-33, fre] **44-4327**
- Road maintenance**
- Method for rating unsurfaced roads. Eaton, R.A., et al. [1989, p.30-40, eng] **44-609**
- Rating unsurfaced roads. Eaton, R.A., et al. [1988, p.66-69, eng] **44-617**
- Repair of bridge deck structures in cold weather. Final report. Kudlapur, P., et al. [1987, 219p., eng] **44-676**
- Durability of thermoplastic road marking materials. Isacson, U., et al. [1988, 51p., eng] **44-677**
- Prospects for winter maintenance machines and equipment. Tampo, T., [1988, p.20-24, fin] **44-751**
- Spring demonstrations of snow removal trucks. Bilotta, A., [1989, p.14-27, ita] **44-909**
- Cost effectiveness of proper pothole patching. Eaton, R.A., [1988, p.170-174, eng] **44-1048**
- Patching materials for asphalt pavements. Anderson, D.A., et al. [1988, 152p., eng] **44-1106**
- Diversification of snow removal systems. Toma, S., [1988, p.47-61, jpn] **44-1289**
- Property testing and efficient spreading method for de-icing chemicals. Murakuni, M., et al. [1987, p.141-151, jpn] **44-1310**
- Clearing avalanche deposits. Poljakov, I.S., et al. [1989, p.54-61, rus] **44-1572**
- Information management-state of the art. the SHRP LTPP experience. Clarke, D.B., et al. [1989, p.118-127, eng] **44-1649**
- High speed data acquisition system for PCC pavement testing. Okamoto, P.A., [1989, p.128-135, eng] **44-1650**
- Curtailing usage of de-icing agents in winter maintenance. [1989, 123p., eng] **44-2111**
- Infiltration of de-icing road salts in aquifers. Locat, J., et al. [1989, p.2186-2193, eng] **44-2274**
- Degradation of pavements by antifreezes. Doi, S., [1985, p.289-292, jpn] **44-2327**
- Deicing measures of road surface in expressways. Murakuni, M., et al. [1986, p.451-456, jpn] **44-2486**
- Field experiment of snow-melting for roads by using groundwater. Urakami, K., et al. [1986, p.573-578, jpn] **44-2501**
- Road snow melting by heat pumps and heat pipes without sprinklers. Sato, K., [1986, p.591-600, jpn] **44-2504**
- Proceedings. [1988, 676p., jpn] **44-2666**
- Construction and maintenance of snowbreak forest on Doou Expressway. Utsumi, H., et al. [1988, p.190-195, jpn] **44-2683**
- Asahikawa winter plan. Matsushita, K., et al. [1988, p.604-609, jpn] **44-2733**
- Snow removal from elevated roads by air jets. Tanaka, K., et al. [1988, p.640-645, jpn] **44-2737**
- Road traffic information system in winter on the route 230. Miyamoto, I., et al. [1988, p.646-652, jpn] **44-2738**
- Pavement maintenance 1988. Allez, F., et al. [1988, 43p., eng] **44-2743**
- Proceedings. [1989, 645p., jpn] **44-2859**
- Traffic control under poor visibility from blowing snow. Fukazawa, Y., et al. [1989, p.110-114, jpn] **44-2864**
- New control method for road heating (field test at Jozankel). Kobayashi, Y., et al. [1989, p.265-270, jpn] **44-2888**
- Road heating by heat pump with air heat source. Shibuya, K., et al. [1989, p.271-276, jpn] **44-2889**
- Calcium magnesium acetate for snow-and-ice control. Doody, M.E., [1990, 2p., eng] **44-3047**
- Frost heave protection of roads. Takeichi, K., et al. [1985, p.157-191, jpn] **44-3173**
- Pavement temperature distribution and frost countermeasures. Takeichi, K., et al. [1986, p.67-107, jpn] **44-3175**
- Pavement temperature distribution and frost countermeasures. Takeichi, K., et al. [1987, p.169-212, jpn] **44-3177**
- Verglinit evaluation (Boulder). Final report. Kiljan, J., [1989, 21p. + appends., eng] **44-3337**
- Frost heave prevention for road pavements in mountains. Fukuda, M., et al. [1988, p.25-30, jpn] **44-3437**
- Plan for snow fences on multilane highways. Fujita, H., et al. [1987, p.91-96, jpn] **44-3514**
- Snow fences and visibility on roads. Takabe, N., et al. [1989, p.189-194, jpn] **44-3524**
- On-site studies to select methods of pavement repair. Yamazaki, A., et al. [1989, p.57-62, jpn] **44-3564**
- Countermeasures against frost heave on national highways. Saito, T., et al. [1989, p.63-68, jpn] **44-3565**
- Technology transfer. Eaton, R., [1990, p.25, eng] **44-3788**
- Comprehensive technology of snow removal from city streets. Karaban, G.L., et al. [1990, 156p., rus] **44-4119**
- Decision-making aids for winter maintenance. [1990, p.17-23, fre] **44-4325**
- Winter in the Haut-Doubs region of France. Vallet, R., [1990, p.25-29, fre] **44-4326**
- Roadbeds**
- Subgrade freezing rate. Migliachenko, V.P., [1989, p.91-95, rus] **44-1502**
- In situ permeability measurements. Moulton, L.K., [1989, p.63-73, eng] **44-1643**
- Thermocouple and thermistor temperature measurement systems. Briggs, R., [1989, p.101-107, eng] **44-1647**
- Frost heave control with buried insulation. Final report. Ardani, A., [1989, 43p., eng] **44-1830**
- Cryogenic deformations of roadbeds and ways of preventing them. Dydyshko, P.I., et al. [1990, p.14-25, rus] **44-4294**
- Roads**
- Winter highway construction: final report. Bennett, F.L., [1987, 33p., eng] **44-204**
- Engineering geology studies on the National Petroleum Reserve in Alaska. Kachadoorian, R., et al. [1988, p.899-922, eng] **44-393**
- Avalanche risk on walking tracks in Fiordland, New Zealand. Owens, I.F., et al. [1989, p.231-236, eng] **44-580**
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- Road over permafrost: design of access road in Alaska. Hartley, M.C., et al. [1988, p.19-22, eng] **44-1491**
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- State of the art of pavement response monitoring systems for roads and airfields. [1989, 401p., eng] **44-1636**
- Instrumentation and pavement design. White, T., [1989, p.2-8, eng] **44-1637**
- Instrumentation needs. SHRP's view. Irwin, I.H., et al. [1989, p.20-22, eng] **44-1639**
- Soil suction monitoring for roads and airfields. Fredlund, D.G., [1989, p.24-39, eng] **44-1640**
- Pavement design with the pavement pressuremeter. Briault, J.L., et al. [1989, p.170-179, eng] **44-1655**
- Monitoring pavement responses to traffic loads. Christison, J.T., [1989, p.180-185, eng] **44-1656**
- Alaska's experiences with non-destructive testing. Connor, B., [1989, p.226-233, eng] **44-1660**
- Applications of field instrumentation and performance monitoring of rigid pavements. Rollings, R.S., et al. [1989, p.268-277, eng] **44-1662**
- Iowa Department of Transportation weigh-in-motion. McCall, B., [1989, p.286-295, eng] **44-1664**
- Minnesota cold regions pavement test facility. Newcomb, D.E., et al. [1989, p.360-369, eng] **44-1671**
- Full scale pavement test international joint research. Dumont, A.G., et al. [1989, p.370-375, eng] **44-1672**
- Ice detection system for roads could save money and lives. Edwards, B.D., [1984, p.1626, eng] **44-2092**
- Long-term observations of polystyrene placed in the road structure. Orama, R., [1985, p.34-38, fin] **44-2514**
- Freezing of winter roads in swamps. Morozov, V.S., [1989, p.51-56, rus] **44-2616**
- Artificial ground freezing and soil stabilization. Raad, L., [1988, 92p., eng] **44-2744**
- Beaufort Sea causeways and coastal ocean dynamics. Nedoroda, A.W., et al. [1990, p.509-516, eng] **44-2764**
- Macromodel for road surface conditions during wintertime: initial results. Möller, S., [1989, 42p. + ap., swe] **44-3200**
- Frostline delineation under asphalt and gravel roads. Tremblay, A., et al. [1990, p.247-256, fre] **44-3669**
- Winter chaos—can we buy our way out of it. Hunt, R.D., et al. [1988, p.429-434, eng] **44-3929**
- Simulation of the effects of frost on the performance of roads subjected to salt deicing. Padilla, F., et al. [1989, p.257-261, fre] **44-4024**
- Geosynthetic reinforcement of paved road embankments on polygonal ground. Kinney, T.C., et al. [1990, p.102-112, eng] **44-4490**
- See *also*: Ice roads; Snow roads; Streets
- Rock creep**
- See *also*: Talus
- Rock excavation**
- Fracturing mechanism and dust yield dynamics in impact breakage of permafrost. Larionov, V.R., et al. [1988, p.438-441, eng] **44-223**
- Rock fills**
- Ice formation in rockfill and rockfill-earth dams in permafrost regions. Mukhetidinov, N.A., [1989, p.30-32, rus] **44-96**
- See *also*: Earth fills; Hydraulic fills
- Rock glaciers**
- Rock glacier, a "new" feature in Scandinavian geomorphology. Svensson, H., [1989, p.95-97, eng] **44-110**
- Rock glaciers of the Argentine Andes. Barsch, D., et al. [1989, p.151-163, eng] **44-304**
- Rock glacier dynamics in the Tian Shan Mountains. Cui, Z.J., et al. [1989, p.1286-1291, eng] **44-494**
- Surface movement of a rock glacier, Tian Shan, China. Zhu, C., [1989, p.82-88, chi] **44-654**
- Glaciers, snow cover, and avalanches in the mountains of Kazakhstan. Gorbunov, A.P., ed. [1989, 224p., rus] **44-1384**
- Dynamics of the Nizkomorennyy rock glacier in a 35-year period. Cherkasov, P.A., [1989, p.180-216, rus] **44-1391**
- Transverse ridges on rock glaciers. Loewenherz, D.S., et al. [1989, p.383-391, eng] **44-1900**
- Natural cairns on rock glaciers as an indication of a solid ice core. Humlum, O., [1988, p.78-82, eng] **44-2579**
- Discharge and sediment-load characteristics of the Hilda rock-glacier stream, Canadian Rocky Mountains, Alberta. Bajewsky, L., et al. [1989, p.295-306, eng] **44-2635**
- Altitudinal trends of talus-derived lobate rock glaciers on Disko, central West Greenland. Humlum, O., [1984, p.35-39, eng] **44-2641**
- Facies of rock glaciers. Titkov, S.N., [1989, p.98-109, rus] **44-3238**
- Rock glacier landscapes in northern Tien Shan. Severskiy, E.V., [1989, p.109-117, rus] **44-3239**
- Analyses of permafrost cores from an alpine rock glacier. Haeblerl, W., ed. [1990, 38p., eng] **44-4131**
- Rock magnetism**
- See *also*: Remanent magnetism
- Rock mechanics**
- Frost weathering and ice action in shore platform development. Dionne, J.C., et al. [1988, p.117-130, eng] **44-217**
- Rock glacier dynamics in the Tian Shan Mountains. Cui, Z.J., et al. [1989, p.1286-1291, eng] **44-494**
- Stratified slope deposits in the Central Andes of Peru. Francou, B., [1988, p.47-76, fre] **44-691**

Rock mechanics (cont.)

- Movement of debris on a high Andean talus. Pérez, F.L., [1988, p.77-99, eng] **44-692**
- Cryopediments—important landforms in contemporary and Pleistocene permafrost environments. Czudek, T., [1988, p.161-173, ger] **44-1028**
- Frost action on the slopes of the central Andes in Peru. Francou, B., [1989, p.97-112, fre] **44-1032**
- Pandemonium Creek rock avalanche, British Columbia. Evans, S.G., et al. [1989, p.427-446, eng] **44-2066**
- Role of thermal expansion of ice in forming lake shoreline profiles. Tesaker, E., [1987, p.249-257, eng] **44-3315**

Rock properties

- Frost shattering implications of rock temperatures in alpine environments. Coutard, J.P., et al. [1989, p.399-416, eng] **44-2011**
- Rocks and soil of the martian surface. Sidorov, I.U.I., et al. [1989, 222p., rus] **44-2797**
- Slope dynamics and cryogenic structure of active layer, Yakutia. Vasil'ev, I.S., [1989, p.143-152, rus] **44-3242**
- Water and the thermal evolution of carbonaceous chondrite parent bodies. Grimm, R.F., et al. [1989, p.244-280, eng] **44-3343**

Rock streams

- Flow of granular materials. Savage, S.B., [1989, p.241-266, eng] **44-1090**
- Rock streams in bald-peak mountain belts. Romanovskii, N.N., et al. [1989, 148p., rus] **44-2403**
- Cryo-facial features of rock streams in northern Transbaikalia. Romanovskii, N.N., et al. [1989, p.75-98, rus] **44-3237**
- Transport mechanisms of rock avalanches. Kaiser, P.K., et al. [1990, p.129-144, eng] **44-3288**

Rock temperature

See *permafrost*; *Frozen rock temperature*

Rocks

- Guide to forecasting the thermal regime of soils in Yakutia. Fel'dman, G.M., et al. [1988, 240p., rus] **44-193**
- Clast ploughing, lodgement and glacier sliding over a soft glacier bed. Clark, P.U., et al. [1989, p.201-207, eng] **44-944**
- Frost bursting: a violent expression of frost action in rock. Michaud, Y., et al. [1989, p.2075-2080, eng] **44-2272**
- Contrast between glacially crushed quartz transported by mountain or by continental ice. Clark, P.U., et al. [1989, p.1195-1205, eng] **44-2277**
- Influence of sign-variable temperature on rock strength. Rozenbaum, M.A., et al. [1989, p.22-26, eng] **44-2755**
- Ploughing boulders along shorelines, with particular reference to the St. Lawrence estuary. Dionne, J.C., [1988, p.297-308, eng] **44-3274**
- Enhanced boulder weathering under late-lying snowpatches. Ballantyne, C.K., et al. [1989, p.745-750, eng] **44-3397**
- Ice-push bedrock and its syngenetic till at Pont-Rouge, Quebec. Schroeder, J., et al. [1990, p.33-42, fre] **44-3531**
- Weathered rock as road fill in Alaskan permafrost. Schlegel, M.G., et al. [1990, p.379-388, eng] **44-3685**
- Reconnaissance geology and exploration geochemistry of King Cove, Alaska Peninsula. DuBois, G.D., et al. [1989, 23p., eng] **44-3763**
- Thermal maturity and organic geochemistry of the Kandik basin region, east-central Alaska. Underwood, M.B., et al. [1989, 41p., eng] **44-3764**
- Detection of coarse sediment movement using radio transmitters. Chacho, E.F., Jr., et al. [1989, p.367-373(B), eng] **44-3985**
- Ice-pushed boulders on the shores of Gotland, Sweden. Philip, A.L., [1990, p.661-676, eng] **44-4487**

See *permafrost*; *Frozen rocks*; *Lithology*

Rocky Mountains

- Interannual variations in snowpack in the Rocky Mountain region. Doesken, N.J., et al. [1989, p.21-30, eng] **44-500**

Roofs

- Test for aerodynamic streamlining and snow load distribution pattern. Korotich, A.V., et al. [1989, p.47-51, rus] **44-1055**
- Improved data base and methodology for predicting snow loads. Final report. Pinkard, J.J., [1986, 179p., eng] **44-1443**
- ROOFER: a management tool for maintaining built-up roofs. Bailey, D.M., et al. [1989, 9p., eng] **44-2109**
- Weatherability of laminar roofing materials in Hokkaido. Inoue, S., et al. [1986, p.223-228, jpn] **44-2464**
- Roof collapse under snowdrift loading and snowdrift design criteria. Zallen, R.M., [1988, p.80-98, eng] **44-2512**
- Conditions of snow sliding on roofs and its flight distance. Endo, Y., et al. [1988, p.220-225, jpn] **44-2688**
- Photogrammetry of snow depth on roofs (Pt.4). Sakurai, S., et al. [1989, p.557-560, jpn] **44-2915**
- Roof snowdrifts due to blizzards. O'Rourke, M.J., [1990, p.641-658, eng] **44-3197**

Roughness coefficient

- Roughness coefficient of the bottom surface of ice jams. Filipov, A.M., [1989, p.46-54, rus] **44-4403**
- See *permafrost*; *Surface roughness*

Rubber

- Optimization of properties of a rubber/epoxy coating for asphalt. Lhymn, C., [1989, p.1019-1022, eng] **44-1378**
- Low temperature performance characteristics of elastomers. Thoman, R.A., Jr., [1989, 8p., eng] **44-2853**
- Thermal conductivity, heat capacity and diffusivity of rubbers from 60 to 300 K. Bhowmick, T., et al. [1990, p.116-121, eng] **44-3103**
- Increase in the resistance of synthetic latexes to freezing on addition of modifying additives. Kiseleva, O.G., et al. [1990, p.873-876, eng] **44-3598**
- Elastomers for subzero oilfield use require careful property compromises. Pugh, T.L., [1990, p.12-16, eng] **44-4132**

Rubber ice friction

- By the numbers on snow or ice. Spence, C., [1988, p.18-20, eng] **44-758**
- Tire friction on runways in winter. Yager, T.J., et al. [1988, 28p., eng] **44-1078**

Rubber snow friction

- By the numbers on snow or ice. Spence, C., [1988, p.18-20, eng] **44-758**
- Passenger car and light truck tire dynamic driving traction in snow. [1985, 26p., eng] **44-949**
- Tire friction on runways in winter. Yager, T.J., et al. [1988, 28p., eng] **44-1078**
- Interaction problems between a rigid tire and a supporting snowpack. Yong, R.N., et al. [1987, p.1-10, eng] **44-1226**

Runoff

- Erosion and human land-use in the Orealeven River valley, northern Sweden. Ivarsson, H., et al. [1988, p.137-150, swe] **44-94**
- Ground water runoff in the active water transfer zone in cryohydrological structures. Afanasenko, V.E., et al. [1989, p.3-13, rus] **44-143**
- Losses of winter river runoff in the formation of ice cover. Markov, M.L., [1989, p.79-86, rus] **44-152**
- River runoff during felling periods in a permafrost region. Vasilenko, N.G., et al. [1989, p.92-98, rus] **44-154**
- Geochemistry of atmospheric precipitation and chemical runoff formation. Makarov, V.N., [1989, p.139-149, rus] **44-160**
- Hour-to-hour snowmelt rates and lysimeter outflow during an entire ablation period. Martinec, J., [1989, p.19-28, eng] **44-168**
- Analysis and estimation of runoff in the Bingou Basin of the Qilian Mountains. Yang, Z.N., et al. [1989, p.39-44, eng] **44-170**
- Variations of and runoff from glaciers in China. Wang, Z.T., [1989, p.45-52, eng] **44-171**
- Analysis of the water balance and water resources in the mountainous Heihe River basin. Yang, Z.N., [1989, p.53-59, eng] **44-172**
- Stochastic processes of melt runoff from Heigou Glacier, China. Hu, X.G., [1989, p.61-67, eng] **44-173**
- Applied hydrology in the development of northern basins. [1988, 347p., eng] **44-232**
- New approaches to studying effects of glacier ablation on runoff in Greenland. Braithwaite, R.J., [1988, p.71-76, eng] **44-236**
- Influences of climatic fluctuations and changes in glacierised area on runoff from alpine basins. Collins, D.N., [1988, p.77-86, eng] **44-237**
- Calculation of normal runoff in glacier-covered areas. Pettersson, L.E., [1988, p.95-103, eng] **44-239**
- Hydrology of Bayelva, northwest Spitsbergen. Repp, K., [1988, p.105-114, eng] **44-240**
- Resident time of meltwater in different zones of small basins. Bengtsson, L., [1988, p.131-136, eng] **44-242**
- Monitoring of snow cover and surface runoff in Greenland by use of NOAA-AVHRR satellite data. Sogaard, H., et al. [1988, p.179-188, eng] **44-247**
- Thermal runoff to seas of the Arctic Ocean. Elshin, I.U.A., [1989, p.448-452, eng] **44-286**
- Water conservation and protection functions of forests of Sakhalin. Klintsov, A.P., [1986, p.51-55, eng] **44-317**
- Meteorological effects on snowmelt runoff, Caucasus. Ananicheva, M.D., et al. [1989, p.160-164, rus] **44-354**
- On the generation of stream runoff in till soils. Rodhe, A., [1989, p.1-8, eng] **44-375**
- Simulation of soil frost depth and effect on runoff. Vehviläinen, B., et al. [1989, p.9-24, eng] **44-376**
- Particulate and dissolved matter in snowmelt runoff. Puigdefabregas, J., et al. [1986, p.69-80, eng] **44-485**
- Glacier-hydrological conditions on the Inland Ice. Thomsen, H.H., et al. [1988, 1 fold. map and text, eng] **44-487**
- Snowpack changes at a low elevation site. Kattelmann, R., et al. [1989, p.141-144, eng] **44-517**
- Runoff from the Greenland ice sheet and hydro-electric power. Braithwaite, R.J., et al. [1989, p.12-15, eng] **44-539**
- Agricultural use of melt water in Hoper settlement, Pakistan. Butz, D., [1989, p.35-39, eng] **44-545**
- Subglacial drainage and suspended sediment transport. Collins, D.N., [1989, p.45-50, eng] **44-547**

- Effects of spatial and temporal variation in snowmelt on meltwater chemistry. Williams, M.W., et al. [1989, p.285-288, eng] **44-591**
- Meltwater percolation through snow cover. Pt.1. Hamada, K., et al. [1988, p.89-101, jpn] **44-734**
- Method of estimating flood-frequency parameters for streams in Idaho. Kjelstrom, L.C., et al. [1981, 99p. + maps, eng] **44-824**
- National water summary 1983—hydrologic events and issues. [1984, 243p., eng] **44-1006**
- National water summary 1984. [1985, 467p., eng] **44-1007**
- HEC-1 flood hydrograph package. Users manual. [1987, 325p., eng] **44-1061**
- Volume of glacial runoff in the Balkhash-Alakul basin. Tokmagambetov, G.A., et al. [1989, p.47-68, rus] **44-1388**
- Liquid runoff from the Tuyuksu basin in Zailiyskiy Alatau for 1964-1984. Makarevich, K.G., [1989, p.68-79, rus] **44-1389**
- Water balance of the Tekes River basin. Soscdov, I.S., et al. [1989, p.151-167, rus] **44-1396**
- Diagnostic strategies of an expert system for simulating snowmelt runoff. Engman, E.T., [1988, p.242-249, eng] **44-1410**
- External water exchange in lakes of the USSR. Sorokin, I.N., [1988, 144p., rus] **44-1500**
- Properties of surface runoff in the High Arctic. Cogley, J.G., [1975, 358p., eng] **44-1793**
- Snow cover and maximum leachate discharge of a sanitary landfill. Ettala, M., [1986, p.187-202, eng] **44-1817**
- Snow cover and snowmelt runoff model in the forest zone. Motovilov, I.U.G., et al. [1989, p.17-26, eng] **44-1823**
- Replenishment of soil moisture reserves of agricultural fields. Shutov, V.A., et al. [1989, p.64-71, eng] **44-1837**
- Water contributions during snowmelt in a small watershed. McDonnell, J.J., et al. [1987, p.257-266, eng] **44-1867**
- Spring runoff formation in small rivers in forest areas. Pavlenko, G.V., et al. [1988, p.114-119, rus] **44-2128**
- New directions in surface water modeling. Kavvas, M.L., ed. [1989, 444p., eng] **44-2190**
- Floods and droughts in Labe River basin—the hydrograph shape. Buchtele, J., [1989, p.133-142, eng] **44-2191**
- EXSRM, an expert system for snowmelt runoff model (SRM). Engman, E.T., et al. [1989, p.417-426, eng] **44-2194**
- Meltwater runoff model of Heigou Glacier No.8, Bogda Mt. Hu, X.G., et al. [1989, p.279-286, chi] **44-2423**
- Chemical dynamics of snowmelt runoff. Suzuki, K., et al. [1986, p.336-339, jpn] **44-2477**
- Tapping a glacier. Morse, D., [1989, p.38-41, eng] **44-2524**
- Surface runoff of mountain reservoirs in permafrost zones. Boiarintsev, E.L., et al. [1989, p.71-82, rus] **44-2930**
- Frozen soil, runoff and soil erosion research in northeastern Oregon. Zuzel, J.F., et al. [1990, p.4-10, eng] **44-2960**
- Freeze thaw effects on soil strength. Kok, H., et al. [1990, p.70-76, eng] **44-2968**
- Soil freezing and thawing simulation with the SHAW model. Flerchinger, G.N., et al. [1990, p.77-86, eng] **44-2969**
- Modeling the effects of soil frost and snowmelt on runoff and erosion. Young, R.A., et al. [1990, p.99-107, eng] **44-2971**
- Influence of management practices on snowmelt runoff. Chanasyk, D.S., et al. [1990, p.120-124, eng] **44-2974**
- Runoff from frozen soils. Seyfried, M.S., et al. [1990, p.125-134, eng] **44-2975**
- Effect of frozen soil on erosion—a model approach. Botterweg, P.F., [1990, p.135-144, eng] **44-2976**
- Runoff and soil erosion from thawing soil. McCool, D.K., [1990, p.171-176, eng] **44-2980**
- Effect of thaw depth on infiltration, runoff and sediment transport. Benoit, G.R., et al. [1990, p.224-230, eng] **44-2988**
- Comparison of three methods for measuring depth of soil freezing. Hanson, C.L., et al. [1990, p.257-262, eng] **44-2992**
- Comparison of runoff occurring on frozen and unfrozen soils. Molnau, M., et al. [1990, p.279-285, eng] **44-2995**
- Frost data in the Pacific Northwest. Molnau, M., et al. [1990, p.286-289, eng] **44-2996**
- Mixing of acid meltwater with groundwater in a forested basin in Finland. Bengtsson, L., et al. [1989, p.251-258, eng] **44-3039**
- Snowmelt from perennial snowfield in Daisetsu Mountains. Yamada, T., et al. [1989, p.23-63, jpn] **44-3043**
- Glacial river discharge and salinity of bay in Spitsbergen. Choinski, A., [1989, p.457-464, eng] **44-3063**
- Hydrology of the Delaware River basin. McCabe, G.J., Jr., et al. [1989, p.1231-1242, eng] **44-3114**
- Water equivalent of snow on the running area of mudflow. Yamada, T., et al. [1989, p.41-49, jpn] **44-3125**
- Glacial meltwater input to the Alaska Coastal Current: evidence from oxygen isotope measurements. Kipphut, G.W., [1990, p.5177-5181, eng] **44-3277**

- Hydrophysical impact of power water discharge to Gaupnefjorden. Steen, J.E., et al. [1987, p.159-171, eng] **44-3313**
- The snow-radar: a new device for areal snow depth measurements. Andersen, T., et al. [1987, p.269-284, eng] **44-3316**
- Ice control by regulation of the fresh water discharge into sea water. Gjerp, S.A., et al. [1988, p.137-145, eng] **44-3320**
- Multiyear trends in snowpack ion accumulation and loss, northern Michigan. Stottlemeyer, R., et al. [1990, p.721-737, eng] **44-3349**
- Geologic influences on fluvial hydrology in some watersheds of New Mexico. Kelson, K.I., et al. [1989, p.671-690, eng] **44-3396**
- Influences of deforestation on snowmelt runoff. Shimizu, T. [1990, p.29-34, jpn] **44-3404**
- Report on measurement of riverbed waves during snowmelt runoff. Nakayama, H., et al. [1987, p.423-428, jpn] **44-3517**
- Runoff in rivers from rain and snow. Suzuki, T., et al. [1989, p.35-38, jpn] **44-3630**
- Snowmelt in farmland development. Sawada, N., et al. [1989, p.115-118, jpn] **44-3631**
- Slope disturbances on permafrost. Woo, M.K., et al. [1990, p.175-180, eng] **44-3660**
- Meltwater runoff into rivers from glaciers in China. Yang, Z.N. [1989, p.187-204, chn] **44-3891**
- Simulation of runoff and nitrate transport from mixed basins in Sweden. Brandt, M. [1990, p.13-34, eng] **44-3982**
- Snowmelt runoff modeling in a balsam fir forest. Prévost, M., et al. [1990, p.1067-1077, eng] **44-4271**
- Change in the ice regime of the lower Syrdar'ya due to runoff diversion. Gal'perin, R.I. [1988, p.71-79, rus] **44-4318**
- Effect of runoff on the ice jam water level. Alekseenko, R.I.A. [1989, p.41-45, rus] **44-4402**
- Soil, vegetation and climatic influences on slope hydrology. Ellemers, I. Woo, M.K., et al. [1990, p.85-93, eng] **44-4494**
- See also: Stream flow*
- Runoff forecasting**
- Predictive snow cover and snowmelt models. Bennis, S., et al. [1989, p.219-226, fre] **44-121**
- Snow transport, snowmelt and meltwater infiltration in grasslands. Gray, D.M., et al. [1989, p.8-22, eng] **44-138**
- Snow cover and glacier variations. Colbeck, S.C., ed. [1989, 111p., eng] **44-165**
- Satellite monitoring of snow cover and snowmelt runoff in China. Zeng, Q.Z., et al. [1988, p.52-66, eng] **44-266**
- Thermal runoff to seas of the Arctic Ocean. Elshin, I.U.A. [1989, p.448-452, eng] **44-286**
- Western Snow Conference, 57th, 1989. [1989, 150p., eng] **44-497**
- Interannual variations in snowpack in the Rocky Mountain region. Doesken, N.J., et al. [1989, p.21-30, eng] **44-500**
- Hydrological model input accuracy in determination of water yield. Stednick, J.D. [1989, p.36-44, eng] **44-502**
- Evolution of snowmelt simulation model into a forecasting tool. Rangó, A. [1989, p.45-51, eng] **44-503**
- Reservoir operations guides—application on three reservoirs. Marron, J.K., et al. [1989, p.69-78, eng] **44-506**
- Direction toward improved streamflow forecasting in the Western mountains. Day, G.N., et al. [1989, p.79-89, eng] **44-507**
- Estimating the effects of wildfire on water supplies in the northern Rocky Mountains. Farnes, P.E., et al. [1989, p.90-99, eng] **44-508**
- Assessing the effects of climatic changes on snowpack and streamflow. Cooley, K.R. [1989, p.118-121, eng] **44-511**
- Snow cover, snowmelt and runoff in the Himalayan river basins. Dey, B., et al. [1988, 37p., eng] **44-624**
- Remote sensing of snow cover and spring runoff, Qilian Mts. Zeng, Q.Z., et al. [1988, p.40-48, chn] **44-634**
- Snowmelt runoff of the Heihe River in the Qilian Mts. Feng, X.Z., et al. [1988, p.64-74, chn] **44-637**
- Runoff forecasting from snowmelt, Huanghe and Heihe rivers. Zhang, S.Y., et al. [1988, p.75-84, chn] **44-638**
- Snow cover mapping using Landsat data. Chen, X.Z., et al. [1988, p.100-105, chn] **44-641**
- Spring melt simulation in the Eaux-Blanches watershed, Montmorency Forest, Quebec. Berraja, M., et al. [1988, p.197-203, fre] **44-750**
- Water yield from forest snowpack management. Ffolliott, P.F., et al. [1989, p.1999-2007, eng] **44-834**
- Snowmelt mechanism of snow cover in a warm region. Watanabe, K., et al. [1987, p.105-120, jpn] **44-1288**
- Evaluation of Great Lakes hydraulic routing models. Hartmann, H.C. [1987, 15p., eng] **44-1300**
- Test of snowmelt-runoff model for a major river basin in western Himalayas. Dey, B., et al. [1989, p.167-178, eng] **44-1323**
- Merits of statistical criteria for the performance of hydrological models. Martinec, J., et al. [1989, p.421-432, eng] **44-1532**
- Predicting rangeland snowmelt runoff with SPUR hydrology model. Wilcox, B.P., et al. [1989, p.1351-1357, eng] **44-1560**
- Avalanche snow in seasonal snowmelt of Himalayas. De Scally, F.A., [1989, n.p., eng] **44-1601**
- Estimation of melt rate in seasonally snow-covered mountainous areas. Moussavi, M., et al. [1989, p.249-263, eng] **44-1682**
- Problems of snowmelt runoff modelling for a variety of physiographic and climatic conditions. Leavesley, G.H., [1989, p.617-634, eng] **44-1683**
- Sagebrush rangeland hydrology and evaluation of the SPUR hydrology model. Wilcox, B.P., et al. [1989, p.653-666, eng] **44-1737**
- Snow cover and snowmelt runoff model in the forest zone. Motovilov, I.U.G., et al. [1989, p.17-26, eng] **44-1823**
- Remote sensing of snow and evapotranspiration. Schumge, T., ed. [1985, 167p., eng] **44-1999**
- Estimating maximum spring runoff of rivers and intermittent streams. Fomenko, I.A.A., et al. [1988, p.19-33, rus] **44-2126**
- Calculation of snowmelt and run-off in a river basin. Ohashi, N., et al. [1989, p.358-363, jpn] **44-2899**
- Forecasting spring runoff in southern Sakhalin rivers. Mel'nikova, Z.D., et al. [1989, p.42-47, rus] **44-2928**
- Development and testing of a snowmelt-runoff forecasting technique. Rangó, A., et al. [1990, p.135-144, eng] **44-3006**
- Automated systems aid the Soil Conservation Service in predicting and managing for drought. Shafer, B.A., et al. [1990, p.41-46, eng] **44-3028**
- Snowmelt and stream flow in the Sierra Nevada. MacDonald, L.H. [1990, 405p., eng] **44-3269**
- Snow-radar: an efficient tool for areal snow pack assessments. Killingtveit, A., et al. [1988, p.259-271, eng] **44-3324**
- Model for estimating daily snowmelt. Akatsu, K., et al. [1990, p.13-23, jpn] **44-3402**
- Forecasting system for snowmelt runoff in the Rumoi River. Part 2. Amano, H., et al. [1989, p.61-66, jpn] **44-3589**
- Spring runoff characteristics of the upper Yellow River. Lan, Y., [1989, p.383-391, chn] **44-3615**
- Satellite and geographic information system estimates of Colorado River Basin snowpack. Ferris, J.S., et al. [1989, p.1629-1635, eng] **44-3776**
- Seasonal runoff forecast for Kangerluarsunnguag near Narsarsuaq, West Greenland. Braithwaite, R.J., [1990, 17p., eng] **44-3805**
- Prediction model for snowmelt using a heat balance method. Kondo, J., et al. [1990, p.375-384, eng] **44-3874**
- Using aerial gamma surveys of snow cover to forecast spring flood runoff. Vershinina, L.K. [1989, p.82-96, rus] **44-3910**
- Eastern Snow Conference, 46th, 1989. [1989, 307p., eng] **44-3993**
- Influence of summertime precipitation events on meltwater production in the Karakoram, northern Pakistan. Wake, C.P. [1989, p.28-35, eng] **44-3996**
- Snowmelt runoff studies in upper Yamuna basin. Parsad, R.S., et al. [1989, p.213-218, eng] **44-4015**
- Runways**
- Improving snow roads and airstrips in Antarctica. Lee, S.M., et al. [1989, 18p., eng] **44-1**
- Binders for snow roads and runways in Antarctica. Barber, M.J., et al. [1989, p.84-86, eng] **44-215**
- Engineering geology studies on the National Petroleum Reserve in Alaska. Kachadoorian, R., et al. [1988, p.899-922, eng] **44-393**
- By the numbers on snow or ice. Spence, C. [1988, p.18-20, eng] **44-758**
- Tire friction on runways in winter. Yager, T.J., et al. [1988, 28p., eng] **44-1078**
- Bibliography on airport runways (1984-1988). [1988, 51p., eng] **44-1083**
- Layer moduli and runway overlay design, Kodiak Airport, Alaska. Vinson, T.S., et al. [1989, p.334-345, eng] **44-1669**
- Airport pavement distress in cold regions. Vinson, T.S., et al. [1989, 142p., eng] **44-1722**
- Snow pressure on fiberglass-reinforced-plastic fences at airport. Imabayashi, H., et al. [1987, p.1189-1194, jpn] **44-3519**
- Plane truth about snow removal. [1990, p.52-56, eng] **44-3782**
- See also: Aircraft landing areas; Ice runways*
- Safety**
- Reinforcing and stabilizing buildings on sagging loess soils. Gilman, I.A.D., [1989, 159p., rus] **44-9**
- Improving the prevention of icing of asphalt-concrete pavements. Mikhailov, A.V., et al. [1987, p.9-11, rus] **44-318**
- Meteorological and environmental inputs to aviation systems. Camp, D.W., ed. [1985, 226p., eng] **44-707**
- Fire safety analysis of the polar icebreaker replacement design. Richards, R.C. [1987, 165p., eng] **44-846**
- Fire safety analysis of the polar icebreaker replacement design. Richards, R.C. [1987, 287p., eng] **44-847**
- Fire safety analysis of the polar icebreaker replacement design. Richards, R.C. [1987, 283p., eng] **44-848**
- Fire safety analysis of the polar icebreaker replacement design. Richards, R.C. [1987, 487p., eng] **44-849**
- New methods and materials for molding and casting ice formations. Rehorst, A.L., et al. [1987, 16p., eng] **44-1219**
- Road traffic information system in winter on the route 230. Miyamoto, I., et al. [1988, p.646-652, jpn] **44-2738**
- IMD ice tank personnel safety alarm system. Hackett, P., [1989, 18p. + append., eng] **44-3195**
- Nuclear plant safety. Sevmorput LASH containership. Vorob'ev, V., et al. [1989, p.26-28, eng] **44-4120**
- See also: Accidents*
- Saint Lawrence River**
- Environmental impact of ice booms and river navigation. Buonocore, A.O., [1980, 34p., eng] **44-1851**
- Saline ice**
- See also: Salt ice*
- Saline soils**
- Shear strength of frozen saline soils. Brovka, G.P., et al. [1989, p.30-33, rus] **44-1382**
- Physicochemical and mechanical properties of saline soils during temperature change. Chen, X.B., et al. [1989, p.234-245, eng] **44-1465**
- Thermal conductivity of moist saline soils and ground. Timofeev, A.M., et al. [1988, p.91-103, rus] **44-1967**
- Salt redistribution during freezing of saline sand columns at constant rates. Baker, G.C., et al. [1989, p.1825-1831, eng] **44-2123**
- Salt redistribution and heave of saline soil during cooling. Chen, X.B., et al. [1989, p.231-238, chn] **44-2418**
- Modeling of solute rejection in freezing soils. Pandey, S.M., et al. [1990, p.195-201, eng] **44-2983**
- Effect of salinity of frozen soils on thermal regime of bases of underground pipelines. Suleimanov, V.A., et al. [1990, p.156-159, eng] **44-3256**
- Pore water salinities of Richards 1, coastal sediments. Wolfe, S.A., et al. [1990, p.51-59, eng] **44-3643**
- Pile settlement in saline permafrost: a case history. Miller, D.L., et al. [1990, p.371-378, eng] **44-3684**
- Saline soils in the Yukon Territory. Harris, S.A., [1990, p.159-175, eng] **44-4285**
- Unfrozen saline soils in permafrost along a river. Arc, F.E., et al. [1990, p.60-67, rus] **44-4302**
- Salinity**
- AMERIEZ 1986: responses of under-ice fauna to low temperature and stress. Aarset, A.V., [1989, p.170-171, eng] **44-21**
- AMERIEZ 1986: oceanographic conditions in the northwestern Weddell Sea ice zone. Muench, R.D., et al. [1989, p.179-181, eng] **44-26**
- Characteristics and origin of hypersaline meteoric Lake Garrow. Ouellet, M., et al. [1989, p.215-234, eng] **44-87**
- Formation of cryopegs in areas of man-made pollution. Anisimova, N.P., et al. [1989, p.48-106, rus] **44-155**
- Temperature and salinity in the Northwest Passage, Vol. 2, 1983. Buckingham, W.R., et al. [1987, 152p., eng] **44-200**
- Role of sea ice and other fresh water in the arctic circulation. Aagaard, K., et al. [1989, p.14485-14498, eng] **44-452**
- Arctic halocline and deep water. Hill, J.A. [1988, 54p., eng] **44-673**
- Arctic data compilation and appraisal. Vol. 1. Beaufort Sea. Cornford, A.B., et al. [1982, 279p., eng] **44-1436**
- Arctic data compilation and appraisal. Vol. 6. Queen Elizabeth Is. Fissel, D.B., et al. [1983, 214p., eng] **44-1457**
- Arctic data compilation and appraisal. Vol. 7. Canadian Basin-Arctic Ocean. Birch, J.R., et al. [1984, 624p., eng] **44-1458**
- Arctic data compilation and appraisal. Vol. 12. Beaufort Sea and Amundsen Gulf. Birch, J.R., et al. [1987, 459p., eng] **44-1460**
- Arctic data compilation and appraisal. Vol. 14. Northwest Passage. Birch, J.R., et al. [1987, 300p., eng] **44-1461**
- NOGAP B.6, Vol. 1. Beaufort Sea current measurements, March-August 1987. McCullough, D., et al. [1988, 19p., eng] **44-1475**
- Why does ice grow faster from salt water than from fresh water. Barduhn, A.J., et al. [1987, p.99-106, eng] **44-1786**
- Preliminary cruise report of USNS Bartlett to the Greenland Sea, 1989. Bourke, R.H., et al. [1989, 36p., eng] **44-2041**
- Infiltration of de-icing road salts in aquifers. Locati, J., et al. [1989, p.2186-2193, eng] **44-2274**
- Migration of salts in freezing soils. Romanov, V.P., et al. [1989, p.44-51, eng] **44-2592**
- Temperature and salinity staircases in the northwestern Weddell Sea. Muench, R.D., et al. [1990, p.295-306, eng] **44-2792**
- Glacial river discharge and salinity of bay in Spitsbergen. Choinski, A., [1989, p.457-464, eng] **44-3063**
- Ice control by regulation of the fresh water discharge into sea water. Gjerp, S.A., et al. [1988, p.137-145, eng] **44-3320**

Salinity (cont.)

- Ice drift modelling for the Barents Sea. Carstens, T., et al. [1988, p.171-179, eng] **44-3321**
- Unfrozen water content of saline permafrost. Hivon, E., et al. [1990, p.257-262, eng] **44-3670**
- Nutrient concentrations in antarctic pack ice during the austral winter. Garrison, D.L., et al. [1990, p.35-40, eng] **44-3814**
- Attempt to measure deep saline outflow through Barrow Canyon. Roach, A.T., et al. [1990, p.287-290, eng] **44-3866**
- Large-scale physical oceanography of polar oceans. Carmack, E.C., et al. [1990, p.171-222, eng] **44-3978**
- Mesoscale phenomena in the polar oceans. Muench, R.D., [1990, p.223-285, eng] **44-3979**
- See *Salinity*: Ice salinity
- Salt extraction**
- See *Salinity*: Desalting
- Salt ice**
- Very old sea ice and brackish ice, Ward Hunt Ice Shelf. Jeffries, M.O., et al. [1989, p.553-564, eng] **44-1015**
- Field studies of brackish ice to compare with satellite data. Weeks, W.F., et al. [1989, p.1318-1333, eng] **44-4432**
- Salt lakes**
- Effects of freezing on sulfate salts in North Dakota soils and wetlands. Richardson, J.L., et al. [1990, p.212-215, eng] **44-2985**
- Salt spray**
- See *Salinity*: Sea spray
- Salt water**
- Experimental studies on downward freezing of pure and saline water. Brewster, R.A., [1989, 168p., eng] **44-968**
- Solidification of supercooled liquid brine in aqueous solution of NaCl. Ichimiya, K., et al. [1985, p.83-98, eng] **44-1336**
- Solidification of saline water with convection and radiation at the boundary. Kehtarnavaz, H., et al. [1988, p.197-203, eng] **44-1416**
- Interface movement during serial freezing and thawing of a binary solution. Diller, K.R., et al. [1988, p.243-251, eng] **44-1420**
- Salt fingering in subsea permafrost. Gosink, J.P., et al. [1990, p.9575-9583, eng] **44-4334**
- See *Salinity*: Sea water

Salting

- Snowfighters given new options in deicers. [1989, p.53, eng] **44-769**
- Liquid CaCl₂ lends hand in Indiana snow battle. Heine, M., [1989, p.63-64, eng] **44-771**
- Snag-free snow blowing. Fischer, J., [1989, p.25-27, eng] **44-1094**
- Preliminary performance and benefit analysis of the UK national road ice prediction system. Thornes, J.E., [1989, p.93-99, eng] **44-1468**
- Infiltration of de-icing road salts in aquifers. Locat, J., et al. [1989, p.2186-2193, eng] **44-2274**
- Influence of deicing chemicals on sewage treatment. Kawamura, K., et al. [1989, p.330-335, jpn] **44-2897**
- Chemically breaking the bond between ice and road surfaces. Trost, S.E., et al. [1987, 21p., eng] **44-3767**

Samplers

- Cryogenic sampling of frazil ice deposits. Chacho, E.F., Jr., et al. [1989, 6p., eng] **44-778**
- See *Salinity*: Core samplers; Permafrost samplers; Snow samplers

Sampling

- Analysis of suspended sediment in a proglacial stream. Fenn, C.R., et al. [1989, p.123-135, eng] **44-687**
- Debris accumulation patterns on talus slopes in Surprise Valley, Alberta. Luckman, B.H., [1988, p.247-278, eng] **44-1030**
- Sulfur dioxide in the North American Arctic. Thornton, D.C., et al. [1989, p.331-346, eng] **44-2184**
- Aerosol black carbon measurements in the arctic haze during AGASP-II. Hansen, A.D.A., et al. [1989, p.347-361, eng] **44-2185**
- Elemental composition of particulate material sampled from the arctic haze aerosol. Sheridan, P.J., et al. [1989, p.363-381, eng] **44-2186**
- Measurements of carbon dioxide at Alert during an arctic haze event. Trivett, N.B.A., et al. [1989, p.383-397, eng] **44-2187**
- Biological instrumentation for underice studies in the Arctic. Herman, A.W., [1988, p.49-53, eng] **44-3803**
- Distribution of chlorinated hydrocarbon pesticides and PCBs in the Arctic Ocean. Hargrave, B.T., et al. [1989, 224p., eng] **44-3804**
- Chemical studies of snow in Japan. Suzuki, K., [1989, p.14-26, eng] **44-3995**
- Marine arctic scientific geological research problems. Johnson, G.I., et al. [1990, p.317-330, eng] **44-4101**
- See *Salinity*: Ice sampling
- Sands**
- Periglacial sand wedges and wind-polished stone pavements in south Sweden. Johnsson, G., [1988, p.99-110, eng] **44-91**

- Strength of frozen sand containing tetrahydrofuran hydrate. Parameswaran, V.R., et al. [1989, p.479-483, eng] **44-123**

- Water regime of sandy grounds in a seasonally thawing layer. Boltsov, A.V., et al. [1989, p.27-38, rus] **44-146**

- Compaction characteristics in thawing sandy soil under dynamic loads. Inozemtsev, V.K., [1985, p.114-119, rus] **44-208**

- Placement method and density of hydraulic sand fills. Sladen, J.A., et al. [1989, p.453-466, eng] **44-312**

- Behavior of frozen and unfrozen sands in triaxial testing. Youssef, H., et al. [1988, p.57-64, eng] **44-912**

- Compressibility of sand-ice system. Youssef, H., [1988, p.497-506, eng] **44-1167**

- Measuring the thermophysical properties of frozen soils. Zaitsev, V.S., [1986, p.165-169, eng] **44-1728**

- Icequakes: a model technique for liquefaction potential assessment. [1989, p.56, eng] **44-1930**

- Modelling the behaviour of an oil saturated sand. Evgin, E., et al. [1990, p.31-37, eng] **44-2204**

- Disintegration of frozen and thawed sandy and clayey soils. Shirman, V.G., et al. [1989, p.962-964, rus] **44-2248**

- Estimating the polarizability of frozen samples. Romanov, V.P., et al. [1989, p.794-796, rus] **44-2573**

- Investigation into the frost susceptibility of sandy soils. Wolfe, S.A., [1986, 52p., eng] **44-2949**

- Experimental study of uniaxial compressive strength of frozen sand. Takashi, T., et al. [1980, p.79-88, jpn] **44-3086**

- Influence of freezing-thawing on undrained shear characteristics of sand. Ogawa, S., et al. [1989, p.49-54, jpn] **44-3440**

- Brine movement during freezing of saline sand columns. Baker, G.C., et al. [1990, p.69-73, eng] **44-3645**

- Sanitary engineering**
- Moisture distribution in wastewater sludges. Tsang, K.W.R., [1989, 170p., eng] **44-2100**

- Sastrugi**
- Preliminary estimate of inertia effects in a bulk model of katabatic wind. Kikuchi, T., et al. [1989, p.61-69, eng] **44-1802**

- Sastrugi surveys and katabatic winds at Terra Nova Bay. Bromwich, D.H., et al. [1990, p.5495-5509, eng] **44-3500**

- Satellites**
- See *Salinity*: Spacecraft

- Saturation**
- Ice-water saturation adjustment. Tau, W.K., et al. [1989, p.231-235, eng] **44-264**

- Mechanisms of change in clayey soils during vibration. Kuterger, V.N., [1989, 141p., rus] **44-1035**

- Physicochemical processes in the cryolithozone. Melnikov, P.I., et al. [1989, p.3-8, rus] **44-2052**

- Undersaturation in thawed permafrost at the beginning of freezeback. Ayorinde, O.A., [1990, p.317-321, eng] **44-2241**

- See *Salinity*: Supersaturation

- Saws**
- Factors affecting rates of ice cutting with a chain saw. Coutermarsh, B.A., [1989, 14p., eng] **44-775**

- Scanning electron microscopy**
- Studies of glacial deposits by scanning electron microscopy. Li, S.J., [1989, p.89-91, chi] **44-655**

- Cryogenic scanning electron microscopy in the Arctic and Antarctic. Lilly, M.R., et al. [1990, p.51-60, eng] **44-2206**

- Scattering**
- Triton scattering models and surface atmosphere constraints. Thompson, W.R., [1989, p.969-972, eng] **44-366**

- Scattering of a spheroidal ice/water particle. Hume, A.L., et al. [1989, p.351-357, eng] **44-367**

- Estimating ocean wave spectra by SAR. Tilley, D.G., [1989, p.483-491, eng] **44-402**

- Basin acoustics in the Arctic Ocean. Final technical report. Dyer, J., [1988, 10p., eng] **44-723**

- Microwave scattering models and basic experiments. Fung, A.K., [1989, 32p., eng] **44-785**

- Electromagnetic wave theory and applications. Kong, J.A., et al. [1989, p.181-186, eng] **44-788**

- Attenuation and scattering of radar waves of nonhomogeneous hail. Inuikhin, V.S., et al. [1989, p.53-59, rus] **44-812**

- Scattering and attenuation of radio waves in hail clouds. Abshaev, M.I., et al. [1989, p.76-81, rus] **44-870**

- Determining atmospheric transparency and turbidity-causing components. Kuznetsov, I.S., et al. [1989, p.12-48, rus] **44-1036**

- Calibrated L-band terrain measurements and analysis program. Larson, R.W., et al. [1987, 106p., eng] **44-1233**

- Self-consistency aspects of dielectric mixing theories. Sihvola, A.H., [1989, p.403-415, eng] **44-1324**

- Evolution of wave packets in a three-wave interaction in a heavy liquid under an ice cover. Marchenko, A.V., et al. [1988, p.872-879, eng] **44-1517**

- Investigation of radar characteristics of fresh-water ice sheets. Kondratiev, K.I.A., et al. [1988, p.6-8, eng] **44-1559**

- Acoustic wave propagation in horizontally stratified media. Schmidt, H., [1987, p.473-483, eng] **44-1742**

- Low frequency attenuation in the Arctic Ocean. DiNapoli, F.R., et al. [1986, p.387-395, eng] **44-1744**

- Slow-electron scattering in solid H₂O. Michaud, M., et al. [1987, p.4684-4699, eng] **44-1819**

- Opening of new decay channels for core-excited resonances. Michaud, M., et al. [1987, p.645-648, eng] **44-1820**

- Modelling of microwave emission and scattering from snow and soil. Fung, A.K., et al. [1989, p.297-306, eng] **44-2603**

- Models for the orientation of hydrometeors. McCormick, G.C., [1989, p.1301-1309, eng] **44-3102**

- Estimation of rain and hail rates in mixed-phase precipitation. Balakrishnan, N., et al. [1990, p.565-583, eng] **44-3283**

- Inexpensive polarimetric FM radar and polarimetric signatures of artificial sea ice. Gognoni, S.P., et al. [1989, p.188-191, eng] **44-3399**

- Review of microwave remote sensing of snow. Heacock, T., et al. [1989, p.287-290, eng] **44-4029**

- See *Salinity*: Backscattering. Light scattering. Neutron scattering

- Scavenging**
- Deterioration of nitrophenols in rain and snow. Albert, M., et al. [1989, p.540-545, eng] **44-398**

- Modeling of scavenging of pollutants in clouds. Easter, R.C., et al. [1988, 9p., eng] **44-803**

- Major ions and scavenging of sulphate in the Norwegian Arctic. Joranger, E., et al. [1989, p.2463-2467, eng] **44-2259**

- Redistribution of aerosol particles through scavenging by ice particles. Albert, R.R., et al. [1990, p.870-887, eng] **44-4138**

- Scavenging of aerosol particles by snow flakes. Mitra, S.K., et al. [1990, p.1247-1254, eng] **44-4478**

- Scintillation**
- Boundary layer measurements beneath ice. [1989, 6p., eng] **44-1629**

- Three-wavelength scintillation measurement of turbulent heat fluxes. Andreas, E.L., [1990, p.74-77, eng] **44-3355**

- Scotia Sea**
- AMERIEZ 1986: activities on board the R/V *Melville* and USCGC *Glacier*. Sullivan, C.W., et al. [1989, p.167-169, eng] **44-20**

- AMERIEZ 1986: oceanic factors affecting seabird occurrence. Ainley, D.G., et al. [1989, p.172-173, eng] **44-22**

- Oceanographic observations in the Scotia Sea marginal ice zone, June-Aug. 1988. Husby, D.M., et al. [1989, 70p., eng] **44-618**

- Scotland**
- Mapping very low surface temperature in the Scottish Highlands using NOAA AVHRR data. Collier, P., et al. [1989, p.1519-1529, eng] **44-773**

- Studies of snow chemistry in the Scottish Highlands. Davies, T.D., et al. [1989, p.1-13, eng] **44-3994**

- Climate and the initiation of maritime ice sheets. Payne, A., et al. [1990, p.232-237, eng] **44-4200**

- Achnasheen
- Controls on sedimentation in a late Devonian ice-dammed lake, Achnasheen, Scotland. Benn, D.I., [1989, p.31-42, eng] **44-83**

- Sea air interaction**
- See *Salinity*: Air water interactions

- Sea currents**
- See *Salinity*: Ocean currents

- Sea floor**
- See *Salinity*: Ocean bottom

- Sea ice**
- Radar backscattering from artificially grown sea ice. Bredow, J., et al. [1989, p.259-264, eng] **44-8**

- AMERIEZ 1986: activities on board the R/V *Melville* and USCGC *Glacier*. Sullivan, C.W., et al. [1989, p.167-169, eng] **44-20**

- AMERIEZ 1986: responses of under-ice fauna to low temperature and stress. Aarset, A.V., [1989, p.170-171, eng] **44-21**

- AMERIEZ 1986: oceanic factors affecting seabird occurrence. Ainley, D.G., et al. [1989, p.172-173, eng] **44-22**

- AMERIEZ 1986: phytoplankton at the Weddell Sea ice edge. Fryxell, G.A., et al. [1989, p.173-175, eng] **44-23**

- AMERIEZ 1986: microzooplankton in the ice-edge zone. Garrison, D.L., et al. [1989, p.175-176, eng] **44-24**

- AMERIEZ 1986: acoustic assessment of krill (*Euphausia superba*, Dana). Macaulay, M.C., et al. [1989, p.176-178, eng] **44-25**

- AMERIEZ 1986: oceanographic conditions in the northwestern Weddell Sea ice zone. Muench, R.D., et al. [1989, p.179-181, eng] **44-26**

- AMERIEZ 1986: nutrients and phytoplankton biomass in the ice-edge zone. Nelson, D.M., et al. [1989, p.182-183, eng] **44-27**

- AMERIEZ 1986: photoadaptation of phytoplankton and light limitation of primary production. Soohoo, J.B., et al. [1989, p.185-187, eng] **44-28**

- AMERIEZ 1986: microbial growth and metabolism in the marginal ice zone. Sullivan, C.W., et al. (1989, p. 188-190, eng) **44-29**
- Neutral lipid content in sea-ice microalgae in McMurdo Sound. Priscu, J.C., et al. (1989, p. 191-193, eng) **44-30**
- Effect of temperature on nitrogen and carbon metabolism in sea-ice microalgae. Priscu, J.C., et al. (1989, p. 196-198, eng) **44-31**
- Photosynthetic pigments in sea-ice communities in McMurdo Sound. Palmisano, A.C., et al. (1989, p. 198-199, eng) **44-32**
- Autumn Conference of the Japanese Oceanographic Society, Sendai, Japan, Oct. 2-6, 1985. Summaries of the lectures. (1985, 327p., jpn) **44-56**
- Characteristics of Breid Bay first-year sea ice. Tison, J.L., et al. (1989, p. 261-268, eng) **44-64**
- Ice breeze mechanism for boundary-layer jets. Langland, R.H., et al. (1989, p. 177-193, eng) **44-164**
- Science in Antarctica, Vol. 8: Oceanography. Kusunoki, K., ed. (1989, 137p., jpn) **44-210**
- Turbulent flux of sensible heat near antarctic polynyas. Engelbart, D., (1989, p. 111-121, ger) **44-220**
- Year of Bowen ratios over the frozen Beaufort Sea. Andreas, E.L., (1989, p. 12,721-12,724, eng) **44-231**
- Correlation function study for sea ice. Lin, F.C., et al. (1988, p. 14,055-14,063, eng) **44-261**
- On the satellite retrieval of aerosol optical thickness over polar regions. Kergomard, C., et al. (1989, p. 707-710, eng) **44-276**
- Arctic sea ice characteristics inferred from satellite and buoy data. Barry, R.G., et al. (1989, p. 35-44, eng) **44-295**
- Fram Strait ice flux calculations and associated arctic ice conditions. Englebreton, R.E., et al. (1989, p. 61-67, eng) **44-297**
- Ice pack rigidity and mobility characteristics. Lewis, J.K., et al. (1989, p. 69-77, eng) **44-298**
- Partition of air-ice-ocean momentum exchange as a function of ice concentration, floe size, and draft. Steele, M., et al. (1989, p. 12,739-12,750, eng) **44-309**
- Two-stream multilayer, spectral radiative transfer model for sea ice. Perovich, D.K., (1989, 17p., eng) **44-313**
- Bacteriological studies in antarctic water and ice. Castellvi, J., (1988, p. 169-175, spa) **44-390**
- Effect of ice pressure on marginal ice zone dynamics. Flato, G.M., et al. (1989, p. 514-521, eng) **44-405**
- Infrared snow cover detection by warming of sea ice snow surface. Ikeda, M., (1989, p. 552-560, eng) **44-409**
- Role of sea ice and other fresh water in the arctic circulation. Aagaard, K., et al. (1989, p. 14,485-14,498, eng) **44-452**
- Oceanic heat flux in the Fram Strait measured by a drifting buoy. Perovich, D.K., et al. (1989, p. 995-998, eng) **44-467**
- Arctic program. Office of Naval Research FY 87. Obrochta, R., ed. (1989, 206p., eng) **44-472**
- Grazing and sedimentation of ice algae during and immediately after a bloom at the ice-water interface. Tremblay, C., et al. (1989, p. 291-300, eng) **44-479**
- Features of thermal destruction of inhomogeneous ice cover. Appel, J.L., (1988, p. 65-71, eng) **44-523**
- Environmental measurements in the Beaufort Sea, Spring 1988. Wen, T., et al. (1989, 117p., eng) **44-535**
- Conquest of the North Pole and current maritime and air transportation problems. Malaure, J., ed. (1987, 385p., eng) **44-596**
- Sea ice conditions in the Arctic Ocean. Wadhams, P., (1987, p. 83-94, eng) **44-599**
- Arctic sea ice: climatological distribution and methods of analysis. Smith, B.P., (1987, p. 95-100, eng) **44-600**
- Interaction of ice fields with offshore structures. Vershinin, S.A., (1983, 23p., eng) **44-606**
- Ship operations, 1986-1987. Marthaler, J.G., (1989, p. 406-409, eng) **44-664**
- DMSP-SSM 1 NASA algorithm validation using primarily LANDSAT. Steffen, K., et al. (1988, 108p., eng) **44-709**
- MIZEX 87 meteorology atlas. Guest, P.S., et al. (1988, 146p., eng) **44-710**
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- Arctic oceanography and meteorology review. Final report July-Nov. 1987. Etter, P.C., (1987, 58p., eng) **44-726**
- Measurements of infrared emissivity of thin sea ice. Aota, M., et al. (1988, p. 187-195, jpn) **44-739**
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- Labrador ice margin experiment, 1987. Drinkwater, M.R., et al. (1989, p. 335-342, eng) **44-763**
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- Summer multi-year ice properties in the Beaufort Sea (October 1982). Voelker, R.P., et al. (1982, 116p., eng) **44-1403**
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- In-situ measurement of elastic properties of sea ice. Brooke, G.H., et al. (1989, p. 113-118, eng) **44-1741**
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- Satellite radar altimetry over ice. Vol. 2. Greenland. Zwally, H.J., et al. (1990, 82p., eng) **44-1824**
- Satellite radar altimetry over ice. Vol. 4. Antarctica. Zwally, H.J., et al. (1990, 54p., eng) **44-1825**
- Evaluating seismic data recorded from an ice island in the Arctic Ocean. Cox, I.P., (1987, 219p., eng) **44-1874**
- Model of sea ice cover in the arctic basin. Makhshtas, A.P., et al. (1988, p. 36-116, rus) **44-1939**
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Sea ice (cont.)

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- In situ determination of creep properties of sea ice with the pressuremeter. Murat, J.R., et al. [1989, p.575-594, eng] **44-2644**
- Polar ice prediction system - a sea ice forecasting system. Final report. Preller, R.H., et al. [1989, 42p., eng] **44-2651**
- Airborne electromagnetic sensing of sea ice thickness. Final report. Becker, A., et al. [1988, 129p., eng] **44-2653**
- Active and passive remote sensing of ice. Final report 1 Oct. 88-30 Sep. 89. Kong, J.A., [1989, 15p., eng] **44-2654**
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- Snow covered ice in the Pacific ice massif. Kozlovskii, A.M., et al. [1989, p.84-87, rus] **44-2828**
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- Sonar measurement of sea ice thickness. Hudson, R., [1990, p.135-137, eng] **44-3116**
- Attempt to interpret sea-ice features from the MOS-1 passive microwave data. Ono, N., [1989, p.103-109, jpn] **44-3129**
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- Ice thickness measurement. Wallerstedt, R., [1989, p.427-450, eng] **44-3161**
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- Operation Deep Freeze 89-90 end of season report [1990, var. p., eng] **44-3327**
- Pigment data from ice cores near Showa Station, Mar. 1983-Jan. 1984. Watanabe, K., et al. [1990, 88p., eng] **44-3357**
- Studies of sea ice thickness from submarine and aircraft [1989, 34p. + append., eng] **44-3374**
- Submarine sonar measurement of ice bottom surface. Wadhams, P., et al. [1989, 5p., eng] **44-3375**
- Concurrent remote sensing of arctic sea ice from submarine and aircraft. Wadhams, P., et al. [1989, 20p., eng] **44-3376**
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- Laboratory measurements of optical beams in young sea ice. Schoonmaker, J.S., et al. [1989, p.1606-1613, eng] **44-3625**
- JARE-29 meteorological research, 1988. Wada, M., et al. [1990, p.46-75, jpn] **44-3741**
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- Physical properties of sea ice from the Weddell Sea. Eicken, H., et al. [1990, p.28-32, eng] **44-3812**
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- Nutrient concentrations in antarctic pack ice during the austral winter. Garrison, D.L., et al. [1990, p.35-40, eng] **44-3814**
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- Microorganisms concentrated by frazil ice. Garrison, D.L., et al. [1990, p.92-96, eng] **44-3825**
- Wave-induced sediment enrichment in coastal ice covers. Shen, H.T., et al. [1990, p.100-102, eng] **44-3827**
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- Sea ice model forced with GCM atmosphere. Loeve, P., [1990, p.251-255, eng] **44-3861**
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- Radar backscatter measurements over saline ice. Gogineni, S., et al. [1990, p.603-615, eng] **44-3901**
- Laser measurement of chlorophyll-in water in a marginal ice zone. Hoge, F.E., et al. [1989, p.67-76, eng] **44-3904**
- Star Vue interactive assistance. McAvoy, J.G., [1990, 26p. + appns., eng] **44-3947**
- Coordinated Eastern Arctic Experiment (SPRI) sea-ice studies. Williams, R.G., et al. [1990, p.203-210, eng] **44-3959**
- Could arctic ice be thinning? McLaren, A.S., et al. [1990, p.762, eng] **44-4034**
- Evidence for thinning of the arctic ice cover north of Greenland. Wadhams, P., [1990, p.795-797, eng] **44-4035**
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- Sedimentation from sea ice in the eastern Arctic basin and Fram Strait. Pfirman, S.L., [1990, p.66-68, eng] **44-4109**
- Proceedings. [1990, 377p., eng] **44-4148**
- Isotopic estimation of heat flux through sea ice. Souchez, R., et al. [1990, p.270-272, eng] **44-4208**
- Estimating oceanic heat flux from sea ice thickness. Wettlaufer, J.S., et al. [1990, p.335-338, eng] **44-4217**
- Evolution of ocean winter mixed layer and sea ice. Martinson, D.G., [1990, p.164-171, eng] **44-4238**
- Southern ocean winter mixed layer. Gordon, A.I., et al. [1990, p.11-65, 11-67, eng] **44-4239**
- Light reflection and transmission by sea ice covers. Perovich, D.K., [1990, p.957-956, eng] **44-4264**
- Development of an airborne sea ice thickness measurement system and field test results. Kovacs, A., et al. [1989, 47p., eng] **44-4265**
- Classification of sea ice images using a dual-polarized radar. Orlando, J.R., et al. [1990, p.228-237, eng] **44-4269**
- Sound waves at the water-sea ice interface. Weng, W., et al. [1990, p.2481-2488, eng] **44-4276**
- High frequency transmissions propagated in the marginal ice zone. Catipovic, T.V., et al. [1990, p.185-190, eng] **44-4280**
- Shipborne AVHRR HRPI receiving and image processing system for polar research. Archibald, J., [1990, p.877-886, eng] **44-4282**
- Influence of sea ice on coastal erosion in the Canadian Beaufort Sea. Hequette, A., [1989, p.81-98, fre] **44-4317**
- Sensitivity studies with a sea ice mixed layer psychrometric model in the Weddell Sea. Owens, W.B., et al. [1990, p.9527-9538, eng] **44-4331**
- Coupled sea ice mixed layer simulations for the southern ocean. Stossel, A., et al. [1990, p.9539-9555, eng] **44-4332**
- Proceedings. POAC 89, Vol.3. [1989, p.1188-1611, eng] **44-4425**
- Sea ice observation tower in the Okhotsk Sea. Oshima, M., [1989, p.1266-1280, eng] **44-4429**
- Field studies of brackish ice to compare with satellite data. Weeks, W.F., et al. [1989, p.1318-1333, eng] **44-4432**
- Coastal sea ice deformations. Erhingson, B., [1989, p.1335-1347, eng] **44-4433**
- Sampling of sea ice prior to satellite sensing. Frankson, L.A., et al. [1989, p.1448-1457, eng] **44-4434**
- BEPEX-88, a sea ice remote sensing experiment in the Gulf of Bothnia. Thompson, L., et al. [1989, p.1495-1507, eng] **44-4445**
- Southern ocean and global climate. Gordon, A.I., [1988, p.39-46, eng] **44-4448**
- Internal waves under arctic pack ice: the coherence structure. Levine, M.D., [1990, p.7347-7357, eng] **44-4473**
- Melting and heat flux parameterizations in a thermodynamic sea ice model. Harvey, L.D.D., [1990, p.759-765, eng] **44-4474**
- Ice loads on harbor structures. Smirnov, G.N., et al. [1990, p.27, rus] **44-4480**
- Ice-pushed boulders on the shores of Gotland, Sweden. Philip, A.I., [1990, p.661-676, eng] **44-4487**
- Arctic ice classification using satellite microwave data. Comiso, J.C., [1990, p.1443-1442, eng] **44-4545**

- Redistribution function applicable to a dynamic model of sea ice. Shinohara, Y., et al. (1990, p.13,423-13,431, eng) **44-4546**
- Dynamic and thermodynamic sea ice model for subpolar regions. Lu, Q.M., et al. (1990, p.13,433-13,457, eng) **44-4547**
- Sea ice distribution**
- Report of the International Ice Patrol in the North Atlantic season of 1987. (1987, 132p, eng) **44-34**
- Drift ice in the Soya Strait. Akagawa, M., et al. (1985, p.77, 78, jpn) **44-60**
- Hydrometeorological support to antarctic winter navigation. Krasiuk, V.S., et al. (1988, p.124-127, rus) **44-101**
- Calculating ice distribution in the Azov Sea. Iaran, B.M., et al. (1989, p.138-146, rus) **44-179**
- Comparing radar images of sea conditions with photographs. Mitnik, L.M., et al. (1989, p.371-381, eng) **44-182**
- Use of Kosmos-1500 satellite radar images to study the distribution and the dynamics of sea ice. Bushuev, A.V., et al. (1989, p.382-390, eng) **44-183**
- Comparing sea ice photographs taken from airplanes and from satellites. Aleksandrov, Y.H., et al. (1989, p.391-396, eng) **44-184**
- Informational possibilities of the side-looking radar system of the "Kosmos-1500" satellite. Tsybmal, V.N., et al. (1989, p.480-501, eng) **44-187**
- Digital processing of radar images acquired by the Kosmos-1500 satellite. Asmus, V.V., et al. (1989, p.529-543, eng) **44-188**
- Enhancement of marine radar images of ice infested waters. Kahloun, F., et al. (1989, 47p, + append, eng) **44-203**
- On the value of long-term satellite passive microwave data sets for sea ice climate studies. Parkinson, C.L., et al. (1989, p.9-20, eng) **44-293**
- Spring melt patterns in the Kara, Barents Sea 1984. Crane, R.G., et al. (1989, p.25-33, eng) **44-294**
- Causes of interannual variability in the sea ice cover of the eastern Bering Sea. Niebauer, H.J., et al. (1989, p.45-59, eng) **44-296**
- Winter sea ice-atmosphere interaction in southern polar latitudes. Carleton, A.M., et al. (1989, p.87-101, eng) **44-300**
- East antarctic sea ice zone: ice characteristics and drift. Allison, I., (1989, p.104-115, eng) **44-301**
- Seasonal variations of sea ice motion in the Transpolar Drift stream. Serreze, M.C., et al. (1989, p.811-814, eng) **44-367**
- Overview of LIMEX-87 ice observations. Carsey, F.D., et al. (1989, p.488-492, eng) **44-401**
- Sea ice modeling relevant to the Labrador and Newfoundland shelves. Ikeda, M., (1989, p.535-540, eng) **44-407**
- Seasonal ice margin data for Beaufort and Chukchi Seas. Carsey, F.D., et al. (1989, p.511-551, eng) **44-408**
- Surface layer temperature records above sea ice and open water. Hoerber, H., (1989, p.293-297, eng) **44-412**
- Radar altimetry studies of polar ice. Drinkwater, M.R., (1987, 231p, eng) **44-438**
- Arctic sea ice 1973-1987: seasonal, regional, and interannual variability. Parkinson, C.L., et al. (1989, p.14,499-14,523, eng) **44-453**
- Distribution of pack ice off Okhotsk Sea coast of Hokkaido. Aota, M., et al. (1988, p.35-64, jpn) **44-459**
- Arctic sea ice climatological distribution and methods of analysis. Smith, B.P., (1987, p.95-100, eng) **44-600**
- Oceanographic observations in the Scotia Sea marginal ice zone, June-Aug. 1988. Husby, D.M., et al. (1989, 70p, eng) **44-618**
- Oceanographic and climatological atlas of Bristol Bay. Final report. Wise, J.L., et al. (1987, 192p, eng) **44-674**
- Atlas of oceanographic information for Norton Sound, Alaska. Final report. Ostrom, J.E., et al. (1987, 144p, eng) **44-679**
- Ocean waves in the region of the Soya Warm Current. Ohshima, K.I., (1988, p.117-129, jpn) **44-736**
- Variation in ice concentration off Hokkaido Island. Aota, M., et al. (1988, p.161-175, jpn) **44-737**
- Predictability of ice concentration in the North Atlantic. Garcia, K.S., (1988, 94p, eng) **44-842**
- Ocean forecasting: nonlinear waves and hydrodynamics. (1988, 174p, eng) **44-850**
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- Environmental studies aboard Polar Sea Vol.2, maps. Harrington, M.G., et al. (1987, 40p, eng) **44-886**
- Environmental studies aboard Polar Sea Vol.1, environmental data. Harrington, M.G., et al. (1987, 121p, eng) **44-887**
- Soviet capabilities in extended range arctic ice forecasting. (1987, 140p, eng) **44-893**
- Physical processes related to sea ice divergence. Final report. Lewis, J.K., et al. (1988, 11p, eng) **44-956**
- Sea ice concentration and extent and atmosphere-ice interactions. Maslanik, J.A., (1988, 209p, eng) **44-971**
- Alaska collection SAR data summary. Gineris, D.H., et al. (1989, 55p, eng) **44-994**
- Hydrometeorological support of winter navigation in the Antarctic. Krasiuk, V.S., et al. (1989, p.85-87, eng) **44-1033**
- Arctic Sea ice record from satellites and polar warming. Parkinson, C.L., (1989, p.459-463, eng) **44-1045**
- MCIRIM (Multi-Category Regional Ice Model) version 1.1, user's manual. Loevas, S.M., (1987, 170p, eng) **44-1071**
- Proceedings of the Conference on Port and Ocean Engineering, 1987. (1988, 683p, eng) **44-1123**
- Field strength tests of multi-year ice using thin-walled flat jacks. Iyer, S.H., et al. (1988, p.57-73, eng) **44-1129**
- Mesoscale meteorology of the Norton Sound region. Kozo, T.L., (1988, p.163-181, eng) **44-1137**
- Ice conditions in the Soviet Arctic: trends of multi-year variations. Arikainen, A., (1988, p.215-220, eng) **44-1141**
- Uncertainty of summer ice drift forecasts. McKenna, R.F., et al. (1988, p.287-295, eng) **44-1146**
- Movement of the drifting ice in Bohai Bay. Deng, S.Q., (1988, p.297-300, eng) **44-1147**
- Wave-driven growler impact on platform columns. Spring, W., (1988, p.351-362, eng) **44-1153**
- Eastern-western Arctic sea ice analysis 1986. Annual reference report No.13, for period ending 1986. (1987, 107p, eng) **44-1211**
- Satellite-derived data sets No.2, sea ice concentrations, 1973-1976. Parkinson, C.L., et al. (1987, 43p, eng) **44-1217**
- Science plan for the Alaska SAR facility program. (1989, 87p, eng) **44-1242**
- Flow simulation in the Weddell Sea. Fettweis, M., et al. (1989, 69p, eng) **44-1351**
- Simulations of the annual sea ice cover in the Weddell Sea. Demuth, C., et al. (1989, 47p, eng) **44-1354**
- Bothnia Experiment in Preparation for ERS-1. (1988, 165p, eng) **44-1422**
- Overview of BEPERS Pilot Study. Lepparanta, M., et al. (1988, p.1-15, eng) **44-1423**
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- Aerial photography in BEPERS Pilot Study. Kemppainen, H., et al. (1988, p.107-117, eng) **44-1430**
- Satellite data. Kemppainen, H., et al. (1988, p.153-159, eng) **44-1433**
- Availability of Geosat data during the BEPERS Pilot Study. Ulander, L.M.H., (1988, p.161-165, eng) **44-1434**
- Summertime ice edge in the Chukchi Sea. Stringer, W.J., et al. (1987, 208p, eng) **44-1439**
- Weathering of oil in sea ice. (1988, 465p, eng) **44-1442**
- JARE-26 meteorological observations at Showa Station, 1985. Meshida, S., et al. (1989, p.191-219, jpn) **44-1470**
- Sea ice motion and arctic atmospheric circulation. Serreze, M.C., (1990, 199p, eng) **44-1485**
- Ice data management systems. Terry, B.F., et al. (1989, 154p, + append, eng) **44-1488**
- Ice prediction model for Barents Sea. Preller, R.H., et al. (1989, 34p, eng) **44-1522**
- Electromagnetic wave probing of ice and snow cover. Kong, J.A., (1988, 6p, eng) **44-1607**
- Active and passive remote sensing of ice. Kong, J.A., (1987, 11p, eng) **44-1609**
- Predictability of sea ice concentration. Fleming, G.H., (1987, 143p, eng) **44-1610**
- Ross Sea data buoy project, 1986-1988. Moritz, R.E., (1988, p.78-80, eng) **44-1703**
- Subsurface currents in the southeast Ross Sea. Jacobs, S., (1988, p.80-81, eng) **44-1704**
- Sedimentation history of Terra Nova Bay region. Krissiek, L.A., (1988, p.104-106, eng) **44-1706**
- Remote sensing of ice and cloud. Maslanik, J.A., et al. (1989, p.1691-1696, eng) **44-1814**
- Nearshore ice conditions from radar data, Point Barrow area, Alaska. Shapiro, I.H., et al. (1989, 43p, eng) **44-1829**
- Summary of WINCIRISE II to the Antarctic Peninsula during June and July 1987. Quetin, L.B., et al. (1988, p.149-151, eng) **44-1907**
- Anomalies in arctic sea ice, air temperature and river discharge. Manak, D.K., et al. (1989, p.682-691, eng) **44-2046**
- Review of the climate of Mawson: a representative strong wind site in East Antarctica. Streten, N.A., (1990, p.79-89, eng) **44-2358**
- Sensitivity and uncertainty analysis of a short-term sea ice motion model. Thomson, S.R., et al. (1990, p.17-13, eng) **44-2359**
- Ice conditions in the arctic regions. Saitoh, T., et al. (1987, p.305-310, jpn) **44-2543**
- Satellite monitoring of sea ice along the coast of China. Gong, J., (1989, p.79-90, eng) **44-2594**
- Ice budget of the Greenland Sea. Moritz, R.E., (1988, 189p, eng) **44-2805**
- Icebreaker *Vladivostok* rescue expedition. Chilingarov, A.I., (1989, p.10-16, rus) **44-2819**
- Regularity of ice formation conditions in Russkaya Station coastal zone. Korotkov, A.I., (1989, p.16-29, rus) **44-2820**
- Provision of hydrometeorological information to the rescue expedition on board the icebreaker *Vladivostok*. Krutskikh, B.A., et al. (1989, p.40-51, rus) **44-2821**
- Drift of the *Mikhail Somov* in the Pacific ice massif (Mar. - July 1985). Chugui, I.V., et al. (1989, p.52-56, rus) **44-2822**
- Ice conditions for navigation in the Pacific Ocean ice massif in winter. Smirnov, V.I., (1989, p.56-64, rus) **44-2823**
- Giant and extensive ice and breccia fields in the Pacific and Atlantic oceans. Kozlovskii, A.M., et al. (1989, p.74-81, rus) **44-2826**
- Distribution of icebergs in the South Pacific Ocean according to observations from the icebreaker *Vladivostok*. Kozlovskii, A.M., (1989, p.81-84, rus) **44-2827**
- Ice floes off Okhotsk coast of Hokkaido, 1989. Aota, M., et al. (1989, p.71-82, jpn) **44-3045**
- Management of satellite data reception at Molokozhnyaya Station. Evseev, V.V., (1989, p.84-89, rus) **44-3071**
- Application of satellite ice information to assist navigation during scientific research in the Antarctic. Evseev, V.V., et al. (1989, p.89-94, rus) **44-3072**
- Ice conditions at Russkaya Station in 1980-1987. Bulatov, L.V., (1989, p.115-119, rus) **44-3075**
- Effect of the equatorial Pacific Ocean on interannual variability in the Okhotsk Sea ice. Tachibana, Y., et al. (1989, p.71-77, jpn) **44-3126**
- Analysis and forecasting at the Naval Polar Oceanography Center. Hinsman, D.E., (1989, p.112-120, eng) **44-3142**
- Remote sensing of sea ice. Hawkins, J.D., (1989, p.121-124, eng) **44-3143**
- Recent progress in Navy sea ice forecast modeling. Preller, R.H., (1989, p.125-139, eng) **44-3144**
- Eastern-western arctic sea ice analysis, 1986. (1987, n.p., eng) **44-3254**
- Image texture analysis of sea ice. Holyer, R.J., (1990, 278p, eng) **44-3263**
- Effects of summer melt on calculation of sea ice concentration. Cavalieri, D.J., et al. (1990, p.535-536, eng) **44-3278**
- Newfoundland ice extent and the solar cycle from 1860 to 1988. Hill, B.L., et al. (1990, p.5385-5394, eng) **44-3280**
- Comment on "Seasonal variations in sea ice motion and effects on sea ice concentration in the Canada Basin" by M.C. Serreze et al. Lewis, J.K., (1990, p.5405-5408, eng) **44-3281**
- Ice: the major challenge for petroleum exploitation in the Barents Sea. Jorgensen, T.S., (1988, p.181-194, eng) **44-3322**
- Impact of ice on petroleum exploration in the Barents Sea. Loset, S., et al. (1988, p.195-206, eng) **44-3323**
- Environmental conditions on the Norwegian continental shelf, Barents Sea. Bierke, P.I., et al. (1989, var p., eng) **44-3329**
- Evidence of recent changes in global snow and ice cover. Barry, R.G., (1990, p.121-127, eng) **44-3393**
- Multisensor validation of satellite derived sea ice microwave images. Stellan, K., et al. (1990, p.75-82, eng) **44-3398**
- Sea ice climatic atlas. Volume 2, Arctic East. (1986, 147p, eng) **44-3405**
- Sea ice climatic atlas. Volume 3, Arctic West. (1986, 147p, eng) **44-3406**
- Proceedings. (1989, 637p, eng) **44-3427**
- Ecological features of the Barents Sea. Loeng, H., (1989, p.327-365, eng) **44-3429**
- Northern Svalbard waters. Stromberg, J.O., (1989, p.402-426, eng) **44-3430**
- Biological effect of oceanographic variations in the Iceland Sea. Stefansson, L., et al. (1989, p.427-455, eng) **44-3431**
- Marine biological assessment in the Arctic using remote sensing. Gower, J.F.R., et al. (1989, p.490-509, eng) **44-3432**
- Satellite remote sensing in Arctic for 1990's. Weeks, W.F., et al. (1989, p.510-530, eng) **44-3433**
- NOAA AVHRR imagery of sea ice near Casey. Allison, I., et al. (1989, p.62-79, eng) **44-3447**
- Experience with a new type of model ice. Enkvist, F., (1984, p.1-13, 15, eng) **44-3458**
- Decadal oscillations of the air-sea-ocean system in the Northern Hemisphere. Ikeda, M., (1990, p.106-139, eng) **44-3603**
- Study of barotropic instability in the Sea of Okhotsk. Ohshima, K.I., et al. (1990, p.570-584, eng) **44-3691**
- BEPERS-88: sea ice remote sensing with synthetic aperture radar in the Baltic Sea. Lepparanta, M., et al. (1989, p.698-699, 708-709, eng) **44-3713**
- Sea ice observations near Lützow-Holm Bay. Yoshida, Y., et al. (1990, p.8-14, eng) **44-3739**
- W.F. Weeks Sea Ice Symposium. San Francisco, CA, Dec. 1988. Ackley, S.F., ed. (1990, 209p, eng) **44-3808**
- Snow cover effects on antarctic sea ice thickness. Alley, S.F., et al. (1990, p.16-21, eng) **44-3810**
- Development and physical properties of sea ice in the Weddell Sea. Antarctica. Lange, M.A., (1990, p.22-28, eng) **44-3811**
- Variations in antarctic sea ice. Breitenberger, F., et al. (1990, p.173-177, eng) **44-3844**

Sea ice distribution (cont.)

- Time-lapse bottom study of sea ice in the Greenland Sea. Glover, E., [1990, p.177-179, eng] **44-3845**
- SSM/I observations of the sea ice regime in the Ross Sea, 1979-1985. Jacobs, S., et al. [1990, p.179-181, eng] **44-3846**
- Sea ice conditions due to meteorological effects in the Canada Basin. Maslarik, J.A., et al. [1990, p.181-184, eng] **44-3847**
- Sea ice circulation and ice concentration, Beaufort Sea. Setrege, M.C., et al. [1990, p.185-188, eng] **44-3848**
- NASA sea ice validation program for the DMSP SSM/I. Cavalieri, D.J., et al. [1990, p.197-203, eng] **44-3849**
- NASA SSM/I data processing and archiving of sea ice products. Morris, C.S., [1990, p.203-205, eng] **44-3850**
- Validation of the SSM/I and AFS YORK algorithms for sea ice parameters. Biercklund, C.A., et al. [1990, p.206-208, eng] **44-3851**
- Active passive microwave observations of arctic sea ice. Comiso, J.C., et al. [1990, p.233-235, eng] **44-3857**
- Simulation of the ice cover variations in the Arctic. Fleming, G.H., [1990, p.243-247, eng] **44-3859**
- Preliminary testing of a sea ice model for the Greenland Sea. Pfeiffer, R.H., et al. [1990, p.259-277, eng] **44-3863**
- Oceanic heat flux in the Fram Strait measured by a drifting buoy. Perovich, D.K., et al. [1990, p.291-296, eng] **44-3867**
- Polar ice observation using satellite-derived images and charts. Dev, B., et al. [1989, p.141-149, eng] **44-3896**
- Polar oceanography. Part A: physical science. Smith, W.O., Jr., ed. [1990, 406p, eng] **44-3974**
- Sea ice in the polar regions. Gow, A.J., et al. [1990, p.47-122, eng] **44-3976**
- Remote sensing of the polar oceans. Shuchman, R.A., et al. [1990, p.123-169, eng] **44-3977**
- Ice and polar ocean models. Hakkinen, S., [1990, p.335-353, eng] **44-3981**
- High frequency dynamic response of the Canadian east coast seasonal sea ice zone. Nazarenko, D.M., [1989, p.74-83, eng] **44-4000**
- Ice in the antarctic Pacific. Keys, J.R., [1990, p.95-123, eng] **44-4054**
- Arctic Sea ice and its variability. Barry, R.G., [1990, p.91-107, eng] **44-4073**
- Recent problems in studying sea ice in the Arctic Ocean. Barnes, M.A., et al. [1990, p.101-106, eng] **44-4074**
- Sea ice off the Icelandic coast. Jakobsson, L., [1990, p.106-110, eng] **44-4075**
- Impact of ice on petroleum exploration in the Barents Sea. Lovat, S., et al. [1990, p.119-128, eng] **44-4078**
- Use of deuterium to trace drifting of sea ice. Arnason, B., [1990, p.137-147, eng] **44-4080**
- Arctic Ocean sea ice masses. Smirnov, V.I., [1990, p.147-149, eng] **44-4081**
- Simulation of ice movement in the Arctic Basin over long-term periods. Appel, T.L., et al. [1990, p.149-150, eng] **44-4082**
- Thermohaline conceptions in the Barents Sea. Midthun, I., et al. [1990, p.176-193, eng] **44-4087**
- Orology of the Central Arctic: problems and decisions. Trestvik, A.P., [1990, p.285-301, eng] **44-4100**
- Arctic ecosystems, sea ice and global warming. Alexander, V., et al. [1990, p.206-211, eng] **44-4116**
- Behavior and Chukchi Sea ice motion part 2: onset of large scale Chukchi Sea ice breakout. Reimer, R.W., et al. [1989, p.92p, eng] **44-4139**
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- Feedback between the atmosphere, sea ice and ocean. Berry, M., [1990, p.110-123, eng] **44-4175**
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- Methane gas ice transport and its impact on climate. Coffey, J.S., [1990, p.141-153, eng] **44-4180**
- Sea ice distribution in the Little Ice Age. Parkinson, C.C., [1990, p.221-225, eng] **44-4198**
- Impact of the Siberian high and Aleutian low on sea ice cover. Parkinson, C.C., [1990, p.226-229, eng] **44-4199**
- Shortwave radiation and open water in models of sea ice decay. Perovich, D.K., et al. [1990, p.242-246, eng] **44-4202**
- Arctic Ocean multi-year ice balance, 1979-82. Rothrock, D.A., et al. [1990, p.252-255, eng] **44-4204**
- Recovery of arctic sea ice CO₂ warming of the atmosphere. Zubov, O.K., [1989, p.57-64, rus] **44-4222**
- Model of sea ice and the upper ocean mixed layer off Labrador. Yang, L., et al. [1990, p.11603-11612, eng] **44-4235**
- Methane sea ice in the Arctic: model and satellite results. Walsh, T.E., et al. [1990, p.11613-11628, eng] **44-4236**
- Summer and fall satellite color studies of ice edges. Comiso, J.C., et al. [1990, p.1407-1419, eng] **44-4328**
- Atmospheric half-year cycle and sea ice extent. Arnason, B., et al. [1990, p.1497-1517, eng] **44-4329**
- Empirical sea ice flux by volume model for the Weddell Sea. Lewis, P., et al. [1990, p.1517-1525, eng] **44-4330**
- Sea ice concentration in the Bothnian Sea obtained from visual satellite data. Hakansson, B., [1989, p.1358-1369, eng] **44-4435**
- Sensitivity test of coupling a sea ice model and an ocean model. Lu, Q.M., et al. [1989, p.1380-1393, eng] **44-4437**
- Satellite observations of the ice cover of regions of the Okhotsk Sea. Wakatsuchi, M., et al. [1990, p.1339-13410, eng] **44-4544**
- Arctic ice classification using satellite microwave data. Comiso, J.C., [1990, p.13411-13422, eng] **44-4545**
- Sea level
- Periods of eigenoscillations in the sea level of the Arctic Ocean. Poliakov, I.V., et al. [1988, p.91-100, rus] **44-99**
- Pliocene-Pleistocene ice volume on Pacific margin of Antarctic Peninsula. Larter, R.D., et al. [1989, p.731-734, eng] **44-306**
- Shelf life of antarctic ice. Frolich, R.M., [1989, p.82-85, eng] **44-950**
- Sea level change due to ice wastage. Meier, M., [1989, 5p, eng] **44-993**
- GEOSAT altimeter geophysical data record user handbook. Cheney, R.E., et al. [1987, 35p, eng] **44-1230**
- Reduced rise in sea level. Meier, M.E., [1990, p.115-116, eng] **44-1714**
- Relation of zonation of sponge communities to sea-level change in the arctic margin. Van Wagoner, N.A., et al. [1989, p.2341-2355, eng] **44-2275**
- Greenland ice sheet: is it growing or shrinking. Douglas, B.C., et al. [1990, p.288-289, eng] **44-3067**
- Effect of global warming on arctic coastal and offshore engineering. Gerwick, B.C., Jr., [1990, p.1-5, eng] **44-3384**
- Effects of elevated temperatures and rising sea level on Arctic coast. Barnes, P.W., [1990, p.21-28, eng] **44-3387**
- Predicting global sea level changes from collapsed marine ice sheets. Bindshadler, R.A., ed. [1990, 55p, eng] **44-3499**
- Numerical modelling of the Arctic Ocean water dynamics. Doronin, N.I., et al. [1990, p.76-85, eng] **44-4069**
- Drumlins, subglacial meltwater floods, and ocean responses. Shaw, J., [1989, p.853-856, eng] **44-4143**
- Atmospheric barometer measures arctic sea surface height. Smith, F.E., [1990, p.43-46, eng] **44-4146**
- On the relationship between ice volume and sea level over the last glacial cycle. Mariotti, I.M., et al. [1990, p.81-84, eng] **44-4414**
- History of the northwestern arm of the Champlain Sea. Barnett, P.J., [1988, p.25-36, eng] **44-4452**
- Sea spray
- Bond between coated steel surfaces and sea spray ice. Sackinger, W.M., et al. [1988, p.565-570, eng] **44-1173**
- Sea spray icing on marine structures. Velsimio, S., et al. [1988, p.571-579, eng] **44-1174**
- On the freezing of sprayed sea water to produce artificial sea ice. Sackinger, W.M., et al. [1988, p.581-590, eng] **44-1175**
- Ship icing from sea spray. Zakrzewski, W.P., et al. [1988, p.591-603, eng] **44-1176**
- Ice accretion of wires on board of a ship. Zakrzewski, W.P., et al. [1988, p.605-615, eng] **44-1177**
- Time constants for the evolution of sea spray droplets. Andreas, E.L., [1989, p.147-149, eng] **44-1221**
- Icing hazards on supply vessels and stand-by boats. Horjen, I., et al. [1986, 87p, eng] **44-1277**
- Effect of specimen size on the bending strength of aluminum reinforced ice. Nixon, W.A., et al. [1990, p.217-222, eng] **44-2226**
- Ice growth on a ship's mast. Blackmore, R.Z., et al. [1989, p.1440-1453, eng] **44-4441**
- Use of ship icing models for forecasting icing rates on seagoing ships. Zakrzewski, W.P., et al. [1989, p.1454-1467, eng] **44-4442**
- Sea transportation
- See *also*: Marine transportation
- Sea water
- Oceanographic survey of the Canadian arctic archipelago. Mar. 1982. Fissel, D.B., et al. [1984, 415p, eng] **44-197**
- Oceanographic survey of the Canadian arctic archipelago. Mar. 1983. Fissel, D.B., et al. [1984, 355p, eng] **44-198**
- Sea water temperature and salinity off British Columbia. Grosvaldo, L.F., [1985, 109p, eng] **44-199**
- Temperature and salinity in the Northwest Passage, Vol. 2. 1983. Buckingham, W.R., et al. [1987, 152p, eng] **44-200**
- Temperature and salinity in the Northwest Passage, Vol. 3. 1984. Buckingham, W.R., et al. [1987, 604p, eng] **44-201**
- Science in Antarctica, Vol. 8. Oceanography. Kusumoto, K., ed. [1989, 137p, jpn] **44-210**
- Role of sea ice and other fresh water in the arctic circulation. Aagaard, K., et al. [1989, p.14485-14498, eng] **44-452**
- Oceanic heat flux in the Fram Strait measured by a drifting buoy. Perovich, D.K., et al. [1989, p.995-998, eng] **44-467**
- Grazing and sedimentation of ice algae during and immediately after a bloom at the ice-water interface. Tremblay, C., et al. [1989, p.291-300, eng] **44-479**
- Oceanographic observations in the Scotia Sea marginal ice zone, June-Aug. 1988. Hushby, D.M., et al. [1989, 70p, eng] **44-618**
- Role of ocean-atmosphere reorganizations in glacial cycles. Broecker, W.S., et al. [1989, p.2465-2501, eng] **44-655**
- Arctic halocline and deep water. Hill, J.A., [1988, 54p, eng] **44-673**
- Arctic data inventory and appraisal. Vol. 8. Canada Basin. Thomas, D.J., et al. [1986, 109p, eng] **44-1474**
- Vacuum freezing multiple phase transformation processes. Cheng, C.Y., et al. [1987, p.139-153, eng] **44-1788**
- Effect of hostile marine environments on the Al-Zn-In-Sn sacrificial anode. Schrieber, C.H., et al. [1988, p.73-77, eng] **44-1869**
- Mathematical model of the ocean boundary layer under drifting melting ice. Svensson, L., et al. [1990, p.167-171, eng] **44-2791**
- Effect of the equatorial Pacific Ocean on interannual variability in the Okhotsk Sea ice. Tachibana, Y., et al. [1989, p.1-77, jpn] **44-3126**
- Glacial meltwater input to the Alaska Coastal Current: evidence from oxygen isotope measurements. Kipphut, G.W., [1990, p.5177-5181, eng] **44-3277**
- Properties of high-strength concrete at low temperatures. Marzouk, H.M., et al. [1990, p.167-171, eng] **44-3576**
- Oil pollution problem in the Baltic marine environment. Hirvi, J.P., et al. [1989, p.307-327, eng] **44-3801**
- Nutrient concentrations in antarctic pack ice during the austral winter. Garrison, D.L., et al. [1990, p.1840-1841, eng] **44-3814**
- Attempt to measure deep saline outflow through Barrow Canyon. Roach, A.L., et al. [1990, p.287-290, eng] **44-3866**
- Oceanic heat flux in the Fram Strait measured by a drifting buoy. Perovich, D.K., et al. [1990, p.291-296, eng] **44-3867**
- Deterioration of concrete in cold sea waters. Monks, M., [1990, p.439-446, eng] **44-3898**
- Use of deuterium to trace drifting of sea ice. Arnason, B., [1990, p.137-147, eng] **44-4080**
- Effect of hydrostatic pressure and salinity on the stability of gas hydrates. Handa, Y.P., [1990, p.2652-2657, eng] **44-4137**
- Isotopic peculiarities of meteoric water in polar ice caps. Wetzel, K., [1990, p.11-13, eng] **44-4141**
- SSI in polyoxas: a case study. Schenckel, P., et al. [1990, p.933-945, eng] **44-4142**
- Sea water freezing
- Convective mixing and sea ice formation in the Weddell polynya. Motoki, U., et al. [1985, p.40-47, jpn] **44-58**
- Seasonal variation in sea water under fast ice at Snow Station. Takachi, M., et al. [1988, p.44-49, jpn] **44-59**
- Spring melt patterns in the Kara-Barents Sea, 1984. Crane, R.G., et al. [1989, p.25-33, eng] **44-294**
- Ice pack rigidity and mobility characteristics. Lewis, J.K., et al. [1989, p.60-77, eng] **44-298**
- Atmospheric boundary layer ground observations at tower. Aota, M., et al. [1988, p.177-185, jpn] **44-738**
- Salinity and crystal structure of sea ice near a river mouth. Aota, M., et al. [1988, p.197-211, jpn] **44-740**
- Keel depth in sea ice, Bohar Gulf, China. Deng, S.Q., [1988, p.151-162, eng] **44-1136**
- Role of seawater freezing in the formation of subsea ice ridges. Herin, B., et al. [1990, p.11-22, eng] **44-1769**
- Freezing of ports on Japan Sea in Hokkaido. Horita, T., et al. [1985, p.95-101, jpn] **44-2299**
- Effect of freezing on tidal currents at entrance to bays. Kondo, H., [1985, p.103-107, jpn] **44-2300**
- Ice conditions in the arctic regions. Satoh, T., et al. [1987, p.305-310, jpn] **44-2543**
- Problems on freezing at harbors in Hokkaido. Terauchi, S., et al. [1988, p.277-282, jpn] **44-2694**
- Permeability coefficient of sand and gravel-bearing sea ice. Sack, H., et al. [1988, p.289-296, jpn] **44-2696**
- Some considerations on ice control in a harbor. Terauchi, S., et al. [1988, p.322-329, jpn] **44-2700**
- Air bubbling against freezing in ports. Terauchi, K., et al. [1989, p.223-228, jpn] **44-3633**
- Sea ice in the polar regions. Gow, A.J., et al. [1990, p.47-122, eng] **44-3976**
- Sea waves
- See *also*: Ocean waves
- Sealing
- Use of penetrating sealers on concrete bridge decks. Carter, P.D., [1989, p.292-302, eng] **44-2516**
- Low temperature performance characteristics of elastomers. Thomas, K.A., Jr., [1989, 8p, eng] **44-2853**
- Elastomers for subzero oilfield use require careful property compromises. Pugh, T.L., [1990, p.1216, eng] **44-4132**
- Search and rescue
- See *also*: First aid

Seasonal ablation

Hour-to-hour snowmelt rates and lysimeter outflow during an entire ablation period. Martinez, J., 1989, p.19-28, eng. **44-168**

Seasonal freeze thaw

Formation of the thermal regime of a talik above permafrost. Varlamov, S.P., et al., 1989, p.38-47, rus. **44-147**

Mapping seasonal soil freezing and thawing within the USSR. Tumel, N.V., et al., 1989, p.30-37, rus. **44-619**

Statistical characteristics of frozen soil in Jilin Province. Ni, C.Y., et al., 1989, p.34-43, chi. **44-648**

Prevention of frost action on pile foundations. Sheng, H.F., 1989, p.44-52, chi. **44-649**

Development and design of sludge freezing beds. Martel, C.J., 1989, p.799-808, eng. **44-1759**

Seasonal thawing of soils, with underlying ice-saturated ground. Gavrilov, P.P., et al., 1988, p.41-48, rus. **44-1963**

Methods of studying seasonally freezing and frozen ground. Orlov, V.O., ed., 1985, 76p., rus. **44-2362**

Dynamics of tangential forces of frost heave in the Chita region. Elgin, B.B., 1985, p.50-54, rus. **44-2372**

Heat and moisture transfer in the seasonal thawing of frozen soils. Permiakov, P.P., et al., 1989, p.828-832, eng. **44-2381**

Seasonal active layer in the basin of Huola River, China. Wang, J.C., et al., 1989, p.203-214, chi. **44-2415**

Permafrost-depth calculation by the ground temperature method. Yuan, X.H., 1989, p.239-248, chi. **44-2419**

Calculating moisture migration during seasonal freezing-thawing of soils. Ianitskii, P.A., 1989, p.42-51, rus. **44-2518**

Methods of producing a map of the seasonal freezing and thawing of soils. Vostokova, A.V., et al., 1989, p.50-55, rus. **44-2523**

Thawing seasonally frozen soils using a low-temperature plasma. Zadornov, G.A., et al., 1989, p.41-44, eng. **44-2575**

Infiltration into a seasonally frozen clay soil. Thunholm, B., et al., 1990, p.156-160, eng. **44-2978**

Seasonally frozen ground and frost heaving in Yumenzhon. Yue, H.S., et al., 1989, p.372-382, chi. **44-3614**

Effect of specifications and inspection practices on concrete freeze-thaw resistance. Ward, M.A., et al., 1990, p.271-276, eng. **44-3703**

Seasonal cryogenic rock in the Siberian Uvaly Marshes. Skorbilin, N.A., 1990, p.45-50, rus. **44-4299**

See *also*: Freeze thaw cycles

Seasonal thaw layer

See *also*: Active layer; Thaw depth

Seasonal variations

Year of Bowen ratios over the frozen Beaufort Sea. Andreas, E.L., 1989, p.12,721-12,724, eng. **44-231**

Phenological inversions in alpine terrain (western Tien Shan). Lynov, I.L.S., 1984, p.185-188, eng. **44-281**

Winter sea ice-atmosphere interaction in southern polar latitudes. Carleton, A.M., et al., 1989, p.87-101, eng. **44-300**

Seasonal variations of sea ice motion in the Transpolar Drift Stream. Serreze, M.C., et al., 1989, p.811-814, eng. **44-363**

Surface layer temperature records above sea ice and open water. Hoerber, H., 1989, p.293-297, eng. **44-412**

Arctic sea ice 1973-1987: seasonal, regional, and interannual variability. Parkinson, C.L., et al., 1989, p.14,499-14,523, eng. **44-453**

Predicting changes in thickness of seasonal freezing of rocks. Seregina, N.V., et al., 1988, p.70-75, eng. **44-470**

Interannual variations in snowpack in the Rocky Mountain region. Doesken, N.J., et al., 1989, p.21-30, eng. **44-500**

Hydrological model input accuracy in determination of water yield. Stednick, J.D., 1989, p.36-44, eng. **44-502**

Evolution of snowmelt simulation model into a forecasting tool. Rangno, A., 1989, p.45-51, eng. **44-503**

Hydrological changes of the Rhône River. Vivian, H., 1989, p.57-77, eng. **44-1250**

Atmospheric precipitation in the high altitude region of Zaskisky Alatau. Sudakov, P.A., et al., 1989, p.109-125, rus. **44-1393**

High frequency ambient sound in the Arctic. Farmer, D.M., et al., 1988, p.555-563, eng. **44-1710**

Hydrothermal regime of frozen pale yellow soils during irrigation. Sleptsov, V.I., et al., 1988, p.18-30, rus. **44-1960**

Variability of snowfall in eastern United States. Fairer, G.F., 1989, p.23-25, eng. **44-2090**

Seasonal recession of Mars' south polar cap in 1986. James, P.B., et al., 1990, p.1337-1341, eng. **44-2285**

Year-to-year instability of the Mars south polar cap. Jakosky, B.M., et al., 1990, p.1359-1365, eng. **44-2287**

Seasonal variations in porosity and density of ice in Yenisey Bay. Latalin, D.A., 1985, p.54-58, rus. **44-2373**

Effect of mountain glaciation on vertical movements and seismicity. Rodkin, M.V., 1989, p.130-140, rus. **44-2748**

Seasonal distribution of low flow events in New Hampshire streams with emphasis on the winter period. Melloh, R.A., 1990, p.47-53, eng. **44-3029**

Basic parameters of continentality in soil climate of lowland plains of the USSR. Dimo, V.N., et al., 1989, p.98-105, eng. **44-3251**

Comment on "Seasonal variations in sea ice motion and effects on sea ice concentration in the Canada Basin" by M.C. Serreze et al. Lewis, J.K., 1990, p.5405-5408, eng. **44-3281**

Satellite sensor estimates of northern hemisphere snow volume. Chang, A.T.C., et al., 1990, p.167-171, eng. **44-3352**

Seasonal and climatic warming effects on pile creep in permafrost. Nixon, J.F., 1990, p.335-340, eng. **44-3679**

Jakobshavn Isbrae, West Greenland: seasonal variations in velocity or lack thereof. Echelmeyer, K., et al., 1990, p.82-88, eng. **44-3726**

High frequency dynamic response of the Canadian east coast seasonal sea ice zone. Nazarenko, D.M., 1989, p.74-81, eng. **44-4000**

Diagnostic for denitrification in the winter polar stratospheres. Fahey, D.W., et al., 1990, p.698-702, eng. **44-4033**

Arctic Sea ice and its variability. Barry, R.G., 1990, p.91-101, eng. **44-4073**

One-year lag between heavy snow years in Eurasia and North America. Iwasaki, T., 1990, p.124-126, eng. **44-4176**

Seasonal variation of isotopes in ice cores. Satow, K., et al., 1990, p.256-260, eng. **44-4205**

Seasonal snowfall totals in northern New England: recent trends and variability. Suckling, P.W., et al., 1988, p.14-25, eng. **44-4275**

Sediment transport

Subglacial meltwater discharge in a tidewater glacier environment. Pfirman, S.L., et al., 1989, p.265-281, eng. **44-218**

Hydrology of Bayelva, northwest Spitsbergen. Repp, K., 1988, p.105-114, eng. **44-240**

Isidis basin: site of ancient volatile-rich debris layer. Grizzaffi, P., et al., 1989, p.358-381, eng. **44-378**

Sediment transport by meltwater streams. Bezinge, A., et al., 1989, p.1-5, eng. **44-537**

Glacial sediment and hydro-electric power. Bogen, J., 1989, p.6-11, eng. **44-538**

Errors in rating of suspended sediment transport during ablation seasons. Fenn, C.R., 1989, p.4-68, eng. **44-550**

Sediment flux in a fiord shelf transect: annual report Oct. 86-Sep. 88. Andrews, J.T., 1988, 59p., eng. **44-669**

Analysis of suspended sediment in a proglacial stream. Fenn, C.R., et al., 1989, p.123-135, eng. **44-687**

Movement of debris on a high Andean talus. Perez, F.L., 1988, p.77-99, eng. **44-692**

Sediment transport and deposition in a temperate glacial fiord, Glacier Bay, Alaska. Cowan, E.A., 1989, 453p., eng. **44-963**

Sediment composition and sedimentary processes in the Arctic Ocean. Darby, D.A., et al., 1989, p.657-720, eng. **44-986**

Debris accumulation patterns on talus slopes in Surprise Valley, Alberta. Luckman, B.H., 1988, p.247-278, eng. **44-1030**

Debris transport by avalanche, Torlesse Range, New Zealand. Ackroyd, P., 1986, p.1-14, eng. **44-1451**

Properties of surface runoff in the High Arctic. Cogley, J.G., 1975, 358p., eng. **44-1793**

Sedimentation beneath ice shelves: the view from ice stream B. Alley, R.B., et al., 1989, p.101-120, eng. **44-1943**

Stream development in Glacier Bay National Park, Alaska, U.S.A. Sidle, R.C., et al., 1987, p.350-363, eng. **44-2008**

Geomorphic processes on scree slopes during winter in Gaspésie, Quebec. Hétu, B., et al., 1989, p.389-406, fre. **44-2065**

Pandemonium Creek rock avalanche, British Columbia. Evans, S.G., et al., 1989, p.427-446, eng. **44-2066**

Alpine proglacial fluvial sediment transfer. Warburton, J., 1989, 471p., eng. **44-2101**

Avalanche sedimentation on the Black Sea shelf. Albulatov, N.A., et al., 1989, p.21-28, rus. **44-2377**

Freeze front effects on sediment distribution in seawater-slurry ice slurries. Clayton, J.R., Jr., et al., 1990, p.145-151, eng. **44-2399**

Observations of sea ice influence on the littoral sediment exchange, North Zealand, Denmark. Nielsen, N., 1988, p.61-67, eng. **44-2577**

Sedimentation in proglacial Ivory Lake, Southern Alps, New Zealand. Hicks, D.M., et al., 1990, p.26-42, eng. **44-2661**

Modeling the effects of soil frost and snowmelt on runoff and erosion. Young, R.A., et al., 1990, p.99-107, eng. **44-2971**

Denudation of glaciated and non-glaciated catchments. Kostorzewski, A., et al., 1989, p.317-362, eng. **44-3056**

Review of beach nourishment from ice transport of shoreface materials, Beaufort Sea, Alaska. Reimnitz, E., et al., 1990, p.439-469, eng. **44-3395**

Geologic influences on fluvial hydrology in some watersheds of New Mexico. Kelson, K.I., et al., 1989, p.671-690, eng. **44-3396**

Fiord to deep sea sediment transfers along the north-eastern Canadian continental margin: models and data. Andrews, J.T., 1990, p.55-70, eng. **44-3532**

Coastal sedimentation along glacial outwash plain shorelines in northwest Spitsbergen. Hequette, A., et al., 1990, p.77-88, fre. **44-3533**

Ice effect on erosion and sedimentation on the Ontario shores of James Bay, Canada. Martini, I.P., 1981, p.1-16, eng. **44-3765**

Sediment pellets on sea ice. Barnes, P.W., et al., 1990, p.106-108, eng. **44-3829**

Sediment transport by ice scoring. Barnes, P.W., et al., 1990, p.109-111, eng. **44-3830**

Sediment transport in freshwater- and seawater-slurry ice slurries. Clayton, J.R., Jr., et al., 1990, p.111-111, eng. **44-3831**

Marine controls on modern sedimentation on the antarctic continental shelf. Jacobs, S.S., 1989, p.121-153, eng. **44-3934**

Sediment deposition in glacier-influenced fjords. Syvitski, J.P.M., 1989, p.301-329, eng. **44-3940**

Friction at the base of a glacier. Schweizer, J., 1989, 181p., eng. **44-3951**

Detection of coarse sediment movement using radio transmitters. Chacho, E.F., Jr., et al., 1989, p.367-373(B), eng. **44-3985**

Sedimentation from sea ice in the eastern Arctic basin and Fram Strait. Pfirman, S.L., 1990, p.66-68, eng. **44-4109**

Cryostatic desiccation processes associated with sand intraclasts. Menzies, J., 1990, p.684-693, eng. **44-4413**

Erratics of Prince Patrick Island glacial or ice-rafted sediments. Hodgson, D.A., 1990, p.67-70, eng. **44-4493**

Proceedings of the Symposium: Transport of Glacial Drift in Finland. 1989, 74p., eng. **44-4500**

Transport of erratics in Finland and Estonia. Donner, J., 1989, p.7-13, eng. **44-4501**

On measuring the length of glacial transport. Salonen, V.P., et al., 1989, p.25-32, eng. **44-4504**

Sedimentation

Studies of glacial deposits by scanning electron microscopy. Li, S.J., 1989, p.89-91, chi. **44-655**

Sediment composition and sedimentary processes in the Arctic Ocean. Darby, D.A., et al., 1989, p.657-720, eng. **44-986**

Lower Rhine: geomorphological changes. Van Urk, G., et al., 1989, p.167-182, eng. **44-1251**

Sediment flux in fiords. Andrews, J.T., 1987, 8p., eng. **44-1611**

Sedimentation processes in the transition from interglacial to glacial conditions. Mel'nikuk, V.I., 1989, p.108-114, rus. **44-1755**

25th annual meeting. 1990, 82p., eng. **44-2767**

Frozen soil, runoff and soil erosion research in northeastern Oregon. Zurel, J.F., et al., 1990, p.4-10, eng. **44-2960**

Sedimentation in proglacial lakes in Spitsbergen. Wojciechowski, A., 1989, p.385-399, eng. **44-3059**

Sedimentation in the Barents Sea. Lavrushin, I.U., et al., 1990, p.82-90, rus. **44-3065**

Ice effects in tidal marsh development in Quebec, Canada. Dionne, J.C., 1989, p.171-210, eng. **44-3273**

Sedimentation from sea ice in the eastern Arctic basin and Fram Strait. Pfirman, S.L., 1990, p.66-68, eng. **44-4109**

Late Quaternary development of the Champlain Sea basin. Gadd, N.R., ed., 1988, 312p., eng. **44-4449**

Glaciomarine fan deposition in the Champlain Sea. Sharpe, D.R., 1988, p.63-82, eng. **44-4455**

Lithofacies relationships in a freshwater-marine transition of the Champlain Sea. Gadd, N.R., 1988, p.83-90, eng. **44-4456**

Glacial marine facies of the late Wisconsinan Champlain Sea (southern Quebec). Prichonnet, G., 1988, p.91-105, eng. **44-4457**

Effect of water depth on glaciolacustrine sedimentation. Fyfe, G.J., 1990, p.147-164, eng. **44-4475**

Sediments

Drumlins: products of controlled or uncontrolled glaciodynamic response. Menzies, J., 1989, p.151-158, eng. **44-118**

Microbiological characteristics in cryolithozone sedimentary rocks. Gilchinskii, D.A., et al., 1989, p.103-115, rus. **44-162**

Trace metals in meltwater from the Rhône glacier. Lum-Shue-Chan, K., 1981, p.286-295, eng. **44-418**

Sand-ice interactions and sediment deposition in ice-covered lakes. Simmons, G.M., Jr., et al., 1989, p.237-240, eng. **44-659**

Deposits in a small ice-dammed lake in Norway. Donnelly, R., et al., 1989, p.581-600, eng. **44-682**

Sediment composition and sedimentary processes in the Arctic Ocean. Darby, D.A., et al., 1989, p.657-720, eng. **44-986**

Sediments (cont.)

- Effects of freezing on toxicity of contaminated sediments. Schuytema, G.S., et al. [1989, p.883-891, eng] **44-1205**
- Arctic data compilation and appraisal. Vol.16. Queen Elizabeth Is. Thomas, D.J., et al. [1986, 125p., eng] **44-1462**
- Arctic data inventory and appraisal. Vol.18. Canada Basin. Thomas, D.J., et al. [1986, 109p., eng] **44-1474**
- Seismic studies on the Siple Coast, 1987-1988. Bentley, C.R., et al. [1988, p.54-55, eng] **44-1691**
- Climatic change data inferred from a frozen lake in Arctic Canada. Blake, W., Jr., [1989, p.41-54, eng] **44-1856**
- Landscape-geochemical analysis of frozen-taiga geosystems. Shechetnikov, A.I. [1989, 127p., rus] **44-2068**
- Avalanche sedimentation on the Black Sea shelf. Abulatov, N.A., et al. [1989, p.21-28, rus] **44-2377**
- Denudation rates in the Arctic estimated from lake sediments on Spitsbergen, Svalbard. Svendsen, J.I., et al. [1989, p.153-168, eng] **44-2387**
- Water intake flow in unsaturated freezing soils. Gao, W.Y., et al. [1989, p.137-147, chj] **44-2408**
- Lake sediment cores from the Antarctic Peninsula. Zale, R., et al. [1989, p.211-220, eng] **44-2623**
- Fabric and origin of diamictites in end moraines, Animas River valley, Colorado, U.S.A. Johnson, M.D., [1990, p.14-25, eng] **44-2660**
- Ground ice in the deposits on slopes of Tien Shan and Pamirs. Ermolin, E.D., [1989, p.3-13, rus] **44-3229**
- Deposits on slopes of the Adycha valley. Liubomirov, A.S., [1989, p.13-20, rus] **44-3230**
- Engineering and geocryological zoning along the Amur-Yakutsk Main Line within the Aldan plateau. Dorofeev, I.V., et al. [1989, p.20-31, rus] **44-3231**
- Granular sediments in ground ice, Beaufort Sea coast. Gowan, R.J., et al. [1990, p.283-290, eng] **44-3673**
- Salt-water anchor ice formation. Kempema, E.W., et al. [1990, p.114-116, eng] **44-3832**
- Sediments of the antarctic Pacific. Anderson, J.B., [1990, p.187-206, eng] **44-4055**
- See *also*: Bottom sediment; Glacial deposits; Lacustrine deposits; Marine deposits; Quaternary deposits; Suspended sediments
- Seepage**
- Mapping suprapermafrost ground water in loose deposits of plains. Ponomareva, O.E., [1989, p.132-139, rus] **44-159**
- Multiphase flows in porous media. Morel-Seytoux, H.J., [1987, p.103-174, eng] **44-307**
- Icy reception suits roadheader down to the ground. Weber, B.H., [1989, p.19-21, eng] **44-322**
- Evaporation from reservoir equipped with snow fence. Sturges, D.L., [1989, p.9-20, eng] **44-499**
- Spatial variability of snow-pack outflow at a site in Sierra Nevada, U.S.A. Kattelmann, R., [1989, p.124-128, eng] **44-560**
- Pro-glacial lake in the French Alps. Vallon, M., [1989, p.273-278, eng] **44-589**
- Snow temperature and meltwater percolation of a glacier. Cat, B.L., et al. [1989, p.60-68, chj] **44-651**
- Meltwater percolation through snow cover, Pt.1. Yamada, K., et al. [1988, p.89-101, jpn] **44-734**
- Infiltration into a frozen heavy clay soil. Thunholm, B., et al. [1989, p.153-166, eng] **44-1322**
- Experimental project No. 12: concrete pavement drainage rehabilitation. Kelly, R.C., [1989, p.74-75, eng] **44-1644**
- Infiltration of de-icing road salts in aquifers. Locat, J., et al. [1989, p.2186-2193, eng] **44-2274**
- Cold-climate nitrifying biofilters: design and operation considerations. Gullicks, H.A., et al. [1990, p.50-57, eng] **44-2833**
- Decrease of ground surface temperature from seepage of snowmelt. Fukami, H., et al. [1989, p.320-324, jpn] **44-2896**
- Runoff from frozen soils. Seyfried, M.S., et al. [1990, p.125-134, eng] **44-2975**
- Infiltration into a seasonally frozen clay soil. Thunholm, B., et al. [1990, p.156-160, eng] **44-2978**
- Snowmelt infiltration into completely frozen subsoiled soils. Gray, D.M., et al. [1990, p.161-170, eng] **44-2979**
- Shape of bodies formed during solidification of fluid flow. Korovin, K.G., et al. [1990, p.773-778, eng] **44-3112**
- Infiltration of water into soil during melting of snow. Gusev, E.M., [1990, p.108-120, eng] **44-3247**
- Extremal estimates in the theory of freezing of filtering soils. Korovin, K.G., [1990, p.569-574, eng] **44-3580**
- New approach for sizing rapid infiltration systems (discussion and closure). Reed, S.C., et al. [1989, p.879-882, eng] **44-3746**
- Modeling of meltwater infiltration in subfreezing snow. Illangasekare, P.H., et al. [1990, p.1001-1012, eng] **44-4129**
- Snowmelt runoff modeling in a balsam fir forest. Prevost, M., et al. [1990, p.1067-1077, eng] **44-4271**
- See *also*: Permeability
- Seismic reflection**
- Seismic studies on the Siple Coast, 1987-1988. Bentley, C.R., et al. [1988, p.54-55, eng] **44-1691**
- Evaluating seismic data recorded from an ice island in the Arctic Ocean. Cox, T.P., [1987, 219p., eng] **44-1874**
- Seismic exploration on a floating ice sheet. Rendleman, C.A., et al. [1990, p.402-409, eng] **44-3778**
- Seismic reflection studies of sediments in the Ross Sea. Karl, H.A., [1989, p.205-223, eng] **44-3936**
- Seismic surveys**
- Snow cover and winter seismic exploration. Felix, N.A., et al. [1989, p.62-68, eng] **44-492**
- Side scan sonar and sub-bottom profile survey of the eastern Chukchi Sea. Ellington, M.D., et al. [1986, 68p., eng] **44-705**
- Seismic reflection surveys. Davy, B.W., et al. [1989, p.15-21, eng] **44-1435**
- Arctic industrial activities, Vol.2: seismic exploration. Sackman, T., et al. [1985, 181p., eng] **44-1507**
- Seismic telemetry network at Showa Station. Akamatsu, J., et al. [1989, p.1-12, eng] **44-2388**
- Icequakes on Ekström Ice Shelf near Atka Bay, Antarctica. Von der Osten-Woldenburg, H., [1990, p.31-36, eng] **44-3718**
- Marine seismic explorations in the Arctic: methods, technology and results. Malovitski, I.A.P., et al. [1990, p.330-337, eng] **44-4102**
- Soviet seismic investigations in deep-sea Arctic Ocean regions. Kiselev, I.U.G., [1990, p.347-348, eng] **44-4106**
- Seismic velocity**
- In-situ* measurement of elastic properties of sea ice. Brooke, G.H., et al. [1989, p.113-118, eng] **44-1741**
- Modeling the upper profile under permafrost conditions. Tabulevich, V.N., ed. [1989, 128p., rus] **44-2074**
- Seismology**
- Effect of mountain glaciation on vertical movements and seismicity. Rodkin, M.V., [1989, p.130-140, rus] **44-2748**
- See *also*: Earthquakes
- Sensor mapping**
- Use of SPOT HRV data in the Corps of Engineers dredging program. Merry, C.J., et al. [1988, p.1295-1299, eng] **44-435**
- Mapping snow cover with satellite imagery. Holroyd, E.W., III, et al. [1989, p.59-68, eng] **44-505**
- Mapping arctic tundra vegetation types using satellite data. Stow, D., et al. [1989, p.1451-1457, eng] **44-772**
- Mapping very low surface temperature in the Scottish Highlands using NOAA AVHRR data. Collier, P., et al. [1989, p.1519-1529, eng] **44-773**
- Satellite-derived data sets No.2: sea ice concentrations, 1973-1976. Parkinson, C.L., et al. [1987, 43p., eng] **44-1217**
- Surface topography of the Greenland ice sheet from satellite radar altimetry. Bindshadler, R.A., et al. [1989, 105p., + 18 maps, eng] **44-2948**
- Classification of merged AVHRR and SMMR arctic data with neural networks. Key, J.R., et al. [1989, p.1331-1338, eng] **44-3777**
- Two-dimensional mapping of sea-ice keels with airborne electromagnetics. Liu, G., et al. [1990, p.239-248, eng] **44-3780**
- Remote sensing applications and development. Maslanik, J.A., et al. [1990, p.105-121, eng] **44-3790**
- Applications of ISES for snow, ice, and sea state. Chang, A.T.C., et al. [1990, p.189-196, eng] **44-3949**
- High frequency dynamic response of the Canadian east coast seasonal sea ice zone. Nazarenko, D.M., [1989, p.74-81, eng] **44-4000**
- Analysis of snow albedo as estimated by Landsat-5 Thematic Mapper. Bernier, M., et al. [1989, p.272-276, fre] **44-4026**
- Settlement (structural)**
- Application of AGF to the construction of the ventilation drifts at Selby Wistow Mine. Auld, F.A., [1989, p.513-524, eng] **44-928**
- Method of estimating thermal settlement in calculating thaw depth. Sheikin, I.V., [1985, p.42-48, rus] **44-2370**
- Pile settlement in saline permafrost: a case history. Miller, D.L., et al. [1990, p.371-378, eng] **44-3684**
- Performance of the first insulated roadway on permafrost in Alaska. Esch, D.C., [1990, p.403-408, eng] **44-3688**
- Thaw settlement around a building on warm ice-rich permafrost. Hanna, A.J., et al. [1990, p.419-424, eng] **44-3690**
- See *also*: Frozen ground settling
- Sewage disposal**
- Buried water and sewer utility lines in Barrow, AK. Hazen, B., et al. [1990, p.397-402, eng] **44-3687**
- See *also*: Waste disposal
- Sewage treatment**
- Low temperature bacterial treatment of wastewater. Halmó, G., [1987, 36p., eng] **44-801**
- Freeze-thaw processes for conditioning wastewater and water treatment sludges. Trahern, P.G., [1989, 250p., eng] **44-972**
- Peat mound drainfields for residential septic treatment. Ryznyk, R.Z., [1988, p.19-22, eng] **44-1012**
- Anaerobic digestion of municipal sewage sludge in cold region. Inoue, Y., et al. [1986, p.343-347, jpn] **44-2478**
- Influence of deicing chemicals on sewage treatment. Kawamura, K., et al. [1989, p.330-335, jpn] **44-2897**
- Primary effluent as a heat source for heat pumps. Phetteplace, G.E., et al. [1989, p.12-17, eng] **44-4255**
- See *also*: Aeration; Waste treatment
- Shaft sinking**
- Artificial freezing for shaft sinking. Ma, Y.M., et al. [1989, p.20-33, chj] **44-647**
- Shaft lining and freezing wall in shaft sinking by freezing. Chou, W.X., [1989, p.487-490, eng] **44-924**
- Application of ground freezing at Rogers Pass, Canada. Macfarlane, I.M., et al. [1989, p.563-564, eng] **44-936**
- Frozen mass control of shafts. Plesniak, I., et al. [1989, p.571-572, eng] **44-940**
- Borehole shaft stability during deep drilling of ice cover. Pashkevich, V.M., et al. [1989, p.39-50, rus] **44-3493**
- Shafts (excavations)**
- General report on engineering design. Gallavresi, F., [1989, p.477-479, eng] **44-922**
- Case study on freezing pressure in a deep shaft. Chou, W.X., [1989, p.481-486, eng] **44-923**
- Frozen rock mass control of shafts. Plesniak, I., et al. [1989, p.571-572, eng] **44-940**
- Modeling of ice class shafting systems. Cowper, D.N.B., et al. [1990, p.P.1-P.22, eng] **44-3478**
- See *also*: Mine shafts
- Shattering**
- See *also*: Frost shattering
- Shear flow**
- C-band SAR observations of marginal ice zone rheology in the Labrador Sea. Drinkwater, M.R., et al. [1989, p.522-534, eng] **44-406**
- Simulation of snow-avalanche flow in run-out zones. Norem, H., et al. [1989, p.218-225, eng] **44-578**
- Shear properties**
- Analytical simulation of the composite ice wall. Corder, P.R., et al. [1989, p.174-180, eng] **44-1197**
- Direct comparison of nondestructive, laboratory, and *in situ* testing. Anderson, M., et al. [1989, p.310-319, eng] **44-1667**
- Acoustic wave propagation in horizontally stratified media. Schmidt, H., [1987, p.473-483, eng] **44-1742**
- Surface influence on adhesion of ice. Igoshin, V.A., et al. [1989, p.111-114, eng] **44-3010**
- Shear strain**
- Model of initial failure in slab-avalanche release. Gubler, H., et al. [1989, p.90-95, eng] **44-554**
- Selecting the most probable values of the mechanical properties of ice. Petrov, I.G., [1989, 32p., eng] **44-1183**
- System development for measurement of full scale ship ice impact forces. Ghoneim, G.A.M., et al. [1984, p.K.1-K.15, eng] **44-3459**
- Shear strength**
- Shear strength of frozen saline soils. Brovka, G.P., et al. [1989, p.30-33, rus] **44-1382**
- Evaluation of shear strength of freshwater ice adhered to icephobic coatings. Mulherin, N.D., [1990, p.149-154, eng] **44-2218**
- Effect of internal confinement on compression strength of frozen sand. Ladanyi, B., et al. [1990, p.8-18, eng] **44-3287**
- Strength requirements in the proposed CASPPR. Daley, C.G., [1990, p.X.1-X.13, eng] **44-3485**
- Factors affecting the adfreeze bond of piles in permafrost. Ladanyi, B., et al. [1990, p.327-334, eng] **44-3678**
- Shear stress**
- Supporting forces and stability of snow-slab avalanches: a parameter study. Lackinger, B., [1989, p.140-145, eng] **44-563**
- Simulation of snow-avalanche flow in run-out zones. Norem, H., et al. [1989, p.218-225, eng] **44-578**
- Snow-collection mechanisms and the capacities of snow fences. Takeuchi, M., [1989, p.248-251, eng] **44-583**
- Theoretical and experimental analyses of glacial abrasion and quarrying. Iverson, N.R., [1989, 240p., eng] **44-975**
- Shear box tests on broken ice. Wong, T.T., et al. [1988, p.97-107, eng] **44-1132**
- Response of a Beaufort Sea clay to monotonic and cyclic loading. McCarron, W.O., et al. [1990, p.329-336, eng] **44-2243**
- System development for measurement of full scale ship ice impact forces. Ghoneim, G.A.M., et al. [1984, p.K.1-K.15, eng] **44-3459**
- Results from the full scale testing of the new icebreaker Oden. Liljestrom, G., et al. [1990, p.F.1-F.9, eng] **44-3469**
- Hydraulic erosion resistance of thawing soil. Van Klaveren, R.W., et al. [1987, 29p., eng] **44-3931**
- Shelf ice**
- See *also*: Ice shelves
- Shells**
- Ultimate loads for corrugated-steel, barrel-type shell structures. Briassoulis, D., et al. [1987, 52p., eng] **44-1408**
- Shelterbelts**
- See *also*: Forest strips
- Shelters**
- On the optimum design of the snow-shelters. Sugimoto, H., et al. [1985, p.251-256, jpn] **44-2324**

- Development of arch type PC shelters. Wakabayashi, O., et al. [1986, p.307-312, jpn] **44-2474**
- On the stress measurement of the snow-shelter. Satoh, M., et al. [1986, p.313-318, jpn] **44-2475**
- See *also*: Portable shelters
- Ship icing**
- Ship icing in the Arctic. Voevodin, V., [1989, p.22-23, rus] **44-1116**
- Deicing and anti-icing methods for ships. Dick, R.A., et al. [1989, 64p. + appends., eng] **44-744**
- Response of ship propeller blades to ice loads. Spencer, P.A., et al. [1989, Var. p., eng] **44-837**
- Ice edge studies aboard *Polar Sea*, Vol.1, environmental data. Zahn, P.B., et al. [1987, 275p., eng] **44-881**
- Bond between coated steel surfaces and sea spray ice. Sackinger, W.M., et al. [1988, p.565-570, eng] **44-1173**
- Sea spray icing on marine structures. Vefsnmo, S., et al. [1988, p.571-579, eng] **44-1174**
- Ship icing from sea spray. Zakrzewski, W.P., et al. [1988, p.591-603, eng] **44-1176**
- Ice accretion of wires on board of a ship. Zakrzewski, W.P., et al. [1988, p.605-615, eng] **44-1177**
- Icing hazards on supply vessels and stand-by boats. Horjen, I., et al. [1986, 87p., eng] **44-1277**
- Arctic groans from ice adhesion. Voevodin, V., [1989, p.86-90, eng] **44-2195**
- Evaluation of shear strength of freshwater ice adhered to icephobic coatings. Mulherin, N.D., [1990, p.149-154, eng] **44-2218**
- LAMPS MK III environmental capabilities. Vollmer, M., [1989, p.53-55, eng] **44-3137**
- Electro-expulsive system for ice removal. Haslim, L., et al. [1989, p.292-302, eng] **44-3155**
- Arctic/cold weather surface ship program. Kover, D.J., [1989, p.303-313, eng] **44-3156**
- Icing/de-icing problems. Jørgensen, T.S., [1987, p.45-61, eng] **44-3312**
- Prediction of vessel icing for near-freezing sea temperatures. Overland, J.E., [1990, p.62-77, eng] **44-3346**
- Research vessel for the U.S. Antarctic Program. Kennedy, H., et al. [1990, p.M/1-M/8, eng] **44-3475**
- Ice growth on a ship's mast. Blackmore, R.Z., et al. [1989, p.1440-1453, eng] **44-4441**
- Use of ship icing models for forecasting icing rates on sea-going ships. Zakrzewski, W.P., et al. [1989, p.1454-1467, eng] **44-4442**
- Ships**
- Design of arctic merchant ships. Bonmort, J., et al. [1987, p.307-311, fre] **44-601**
- Ice cover bending due to ship motion. Levit, B.M., et al. [1969, 4p., eng] **44-607**
- Selection of an optimum propeller for commercial ships. Final report. Hadler, J.B., [1988, 77p., eng] **44-1056**
- Bering Sea data collection aboard USCGC *Polar Star*, Feb.-Mar. 1984, Vol.2. Geisel, F.A., et al. [1984, 115p., eng] **44-1215**
- Method of making ice with given physical properties. Petrov, I.G., et al. [1989, 11p., eng] **44-1497**
- Towed resistance trials in ice of the USCGC *Mobile Bay* (WTGB 103). Zahn, P.B., et al. [1987, 463p., eng] **44-1630**
- Investigation of ice navigation capabilities and drift performance of the *Mikhail Somov* in antarctic waters. Dubov, A.A., et al. [1989, p.115-123, rus] **44-2831**
- Ice density and ice pieces along a vessel's hull. Hardiman, K.C., et al. [1989, 58p. + appends., eng] **44-3107**
- Results of experiments in open water and ice on the SA-15 hull form. Lindstrom, T., [1989, 9p. + appends., eng] **44-3181**
- Ice loads on ship bottoms. Barabanov, N.V., et al. [1982, p.9-11, rus] **44-3207**
- Problems in the development of ice-going ships. Bugakov, V.N., [1982, p.11-14, rus] **44-3208**
- Specification of the requirements for ice-going ships. Boltsov, G.V., [1982, p.14-15, rus] **44-3209**
- Requirements for multipurpose supply ships for the north. Bugakov, V.N., [1989, p.11-15, rus] **44-3213**
- Problems of brittle strength in the design of ice-going ships. Boltsov, G.V., et al. [1989, p.15-18, rus] **44-3214**
- Method for calculating the resistance of ice to ship motion. Alekseev, I.U.N., et al. [1984, p.28-36, rus] **44-3215**
- Ship propellers and ice. Beliaшов, V.A., et al. [1984, p.36-43, rus] **44-3216**
- Ship propellers in ice. Beliaшов, V.A., et al. [1987, p.64-67, rus] **44-3217**
- Corrosion data analysis for development of engineering criteria for arctic structures. Brown, T.G., et al. [1989, 203p. + Appends., eng] **44-3354**
- Conference on Icebreaking and Related Technologies, 3rd, Calgary, 1984, [1984, var.p., eng] **44-3449**
- Damage due to ship collisions with icebergs. Aldwinckle, D.S., et al. [1984, p.D/1-D/14, eng] **44-3453**
- Ship-ice flow collision analysis. Matsushita, M., et al. [1984, p.E/1-E/13, eng] **44-3454**
- BAFFIN - a dynamic ship/ice interaction model. Daley, C.G., [1984, p.F/1-F/8, eng] **44-3455**
- Conference on Ships and Marine Systems in Cold Regions, 4th, 1990 [1990, var.p., eng] **44-3464**
- Effect of ice friction on ship resistance. Williams, F.M., et al. [1990, p.B/1-B/7, eng] **44-3466**
- Ice load criteria for arctic vessels. Churcher, A.C., et al. [1990, p.W/1-W/32, eng] **44-3484**
- Materials aspects for arctic vessels. Tomin, M.J., [1990, p.Y/1-Y/10, eng] **44-3486**
- Subdivision and stability for arctic vessels. Kendrick, A., [1990, p.Z/1-Z/6, eng] **44-3487**
- Design criteria for arctic vessels. Browne, R.P., [1990, p.AA/1-AA/9, eng] **44-3488**
- Long-term trends in studies of engineering constructions and ice interaction process. Likhomanov, V.A., et al. [1990, p.114-119, eng] **44-4077**
- Habbakuk project - building ships from ice. Gold, L.W., [1989, p.1211-1228, eng] **44-4427**
- Hull shape and a ship's navigability in ice. Tsoi, L.G., [1989, p.1486-1492, eng] **44-4444**
- See *also*: Icebreakers; Marine transportation; Oceanographic ships; Submarines; Tanker ships
- Shock waves**
- Techniques for gas gun studies of shock wave attenuation in snow. Brown, J.A., et al. [1988, p.657-660, eng] **44-628**
- Amplification of acoustic waves during rapid crystallization. Nesterov, A.I., et al. [1988, p.103-104, eng] **44-2056**
- Explosive waves in snow. Liakhov, G.M., et al. [1990, p.493-499, eng] **44-4469**
- Shore erosion**
- Morphodynamics of the Wadden Sea. Ehlers, J., [1988, 397p., eng] **44-371**
- Modern clastic depositional systems of Southcentral Alaska. Hayes, M.O., et al. [1989, 42p., eng] **44-461**
- Ice scoring of near-shore bottom sediment in Beaufort Sea. Héquette, A., [1989, p.129-133, fre] **44-2083**
- Observations of sea ice influence on the littoral sediment exchange, North Zealand, Denmark. Nielsen, N., [1988, p.61-67, eng] **44-2577**
- Ploughing boulders along shorelines, with particular reference to the St. Lawrence estuary. Dionne, J.C., [1988, p.297-308, eng] **44-3274**
- Effects of elevated temperatures and rising sea level on Arctic coast. Barnes, P.W., [1990, p.21-28, eng] **44-3387**
- Ice effect on erosion and sedimentation on the Ontario shores of James Bay, Canada. Martini, I.P., [1981, p.1-16, eng] **44-3765**
- Deformation of river banks in Yamal. Are, F.E., et al. [1990, p.67-73, rus] **44-4303**
- Influence of sea ice on coastal erosion in the Canadian Beaufort Sea. Héquette, A., [1989, p.81-98, fre] **44-4317**
- Shore ice**
- See *also*: Fast ice
- Shoreline modification**
- Role of thermal expansion of ice in forming lake shoreline profiles. Tesaker, E., [1987, p.249-257, eng] **44-3315**
- Review of beach nourishment from ice transport of shoreface materials, Beaufort Sea, Alaska. Reimnitz, E., et al. [1990, p.439-469, eng] **44-3395**
- Coastal sedimentation along glacial outwash plain shorelines in northwest Spitsbergen. Héquette, A., et al. [1990, p.77-88, fre] **44-3533**
- Observations on the drainage of an ice-dammed lake in West Greenland. Russell, A.J., et al. [1990, p.72-74, eng] **44-3724**
- Shores**
- Informational possibilities of the side-looking radar system of the "Kosmos-1500" satellite. Tsybal, V.N., et al. [1989, p.486-501, eng] **44-187**
- Snow surveys in the coastal regions of the Japan Sea. Kawashima, K., et al. [1988, p.11-25, jpn] **44-457**
- Characteristics of snow along the Japan Sea coast. Kawashima, K., et al. [1988, p.15-24, jpn] **44-728**
- Correlating marginal ice zones, lake shore formations, and river terraces. Raukas, A.V., et al. [1989, p.208-217, rus] **44-2051**
- Causeway effects on oceanographic processes near Prudhoe Bay. Hale, D.A., et al. [1989, 50p., eng] **44-3772**
- Distinction between ice-pushed and ice-lifted landforms on lacustrine and marine coasts. Gilbert, R., [1990, p.15-24, eng] **44-3870**
- Ecosystems development in a coastal lowland of the Canadian High Arctic. Bliss, L.C., et al. [1990, p.165-174, eng] **44-4113**
- See *also*: Banks (waterways); Beaches; Coastal topographic features; Littoral zone
- Side looking radar**
- Use of Kosmos-1500 satellite radar images to study the distribution and the dynamics of sea ice. Bushuev, A.V., et al. [1989, p.382-390, eng] **44-183**
- Radar maps of the Arctic and Antarctic using data from the Kosmos-1500 satellite and preliminary results of their analysis. Burtsev, A.I., et al. [1989, p.434-451, eng] **44-185**
- Kosmos-1500 satellite side-looking radar. Kalmykov, A.I., et al. [1989, p.471-485, eng] **44-186**
- Informational possibilities of the side-looking radar system of the "Kosmos-1500" satellite. Tsybal, V.N., et al. [1989, p.486-501, eng] **44-187**
- Digital processing of radar images acquired by the Kosmos-1500 satellite. Asmus, V.V., et al. [1989, p.529-543, eng] **44-188**
- SAR flight. Kuittinen, R., [1988, p.17-29, eng] **44-1424**
- Ice and snow surveys from an ice station. Hakansson, B., et al. [1988, p.85-101, eng] **44-1428**
- Processes determining the bottom topography of multiyear arctic sea ice. Wadhams, P., et al. [1990, p.136-141, eng] **44-3837**
- Silver iodide**
- Ice-forming capacity of anti-hail devices in a clear atmosphere. Berezhinski, N.A., et al. [1989, p.115-121, rus] **44-875**
- Using iodargyrite with bismuth thiodide for precipitation enhancement. Scott, P.T., [1987, 61p., eng] **44-1270**
- Rate of ice nucleation by atmospheric ice-forming nuclei. Berezhinski, N.A., et al. [1989, p.5-8, rus] **44-2196**
- Ice-forming activity of ultrasmall silver iodide particles. Gorbunov, B.Z., et al. [1989, p.571-574, rus] **44-2569**
- Formation of ice crystals on a nonuniform surface. Gorbunov, B.Z., et al. [1989, p.848-853, rus] **44-2570**
- Ice-forming activity of ultrasmall particles on silver iodide. Gorbunov, B.Z., et al. [1989, p.495-498, eng] **44-3348**
- Effect of various impurities on the ice forming efficiency of silver iodide aerosols. Bakhanova, R.A., et al. [1989, p.11-19, rus] **44-4225**
- Silver iodide generators**
- See *also*: Smoke generators
- Simulation**
- Hydrogen sulfide on Io: evidence from telescopic and laboratory infrared spectra. Nash, D.B., et al. [1989, p.454-457, eng] **44-42**
- Simulation of soil frost depth and effect on runoff. Vehviläinen, B., et al. [1989, p.9-24, eng] **44-376**
- Transition limits for water-droplet crystallization with the NASA Lewis icing nozzle. Marek, C.J., [1989, p.887-888, eng] **44-377**
- Overview of LIMEX'87 ice observations. Carsey, F.D., et al. [1989, p.468-482, eng] **44-401**
- Numerical simulation of microphysical processes in cumulonimbus Pt.2. Hu, Z.J., et al. [1989, p.185-199, eng] **44-528**
- Test of snowmelt-runoff model for a major river basin in western Himalayas. Dey, B., et al. [1989, p.167-178, eng] **44-1323**
- Merits of statistical criteria for the performance of hydrological models. Martinec, J., et al. [1989, p.421-432, eng] **44-1532**
- Problems of snowmelt runoff modelling for a variety of physiographic and climatic conditions. Leavesley, G.H., [1989, p.617-634, eng] **44-1683**
- EXSRM, an expert system for snowmelt runoff model (SRM). Engman, E.T., et al. [1989, p.417-426, eng] **44-2194**
- Anthropogenic sulphur flux into the Arctic in 1979-80. Barrie, L.A., et al. [1989, p.2505-2512, eng] **44-2264**
- Simulation of planar instabilities during solidification. Sullivan, J.M., Jr., et al. [1987, p.81-111, eng] **44-2280**
- Sensitivity and uncertainty analysis of a short-term sea ice motion model. Thomson, N.R., et al. [1990, p.1713-1739, eng] **44-2359**
- Simulation of microwave brightness temperatures of an evolving hailstorm at SSM frequencies. Mugnai, A., et al. [1990, p.2-13, eng] **44-2758**
- Simulation of hail initiation via snow riming in cloud models. Farley, R.D., et al. [1989, p.1128-1131, eng] **44-2761**
- Model study of drift accumulation of a snow fence. Cookson, P., [1987, 75p., eng] **44-2952**
- Development and testing of a snowmelt-runoff forecasting technique. Rango, A., et al. [1990, p.135-144, eng] **44-3006**
- Analysis of avalanche sites: the ELSA system. Buissou, L., et al. [1990, p.16-21, fre] **44-3202**
- Icebreaker midbody resistance - phase 2, beam variation. Baker, D., et al. [1990, 176p., eng] **44-3769**
- Droplet nucleation rates between -30 and -40 C in laboratory simulations. DeMott, P.J., et al. [1990, p.1056-1064, eng] **44-3902**
- Simulation of district heating systems for piping design. Phetteplace, G., [1989, 27p., eng] **44-3925**
- Mass transfer during ice particle collisions in planetary rings. McDonald, J.S.B., et al. [1989, p.167-179, eng] **44-3969**
- Simulation of ice movement in the Arctic Basin over long-term periods. Appel, I.L., et al. [1990, p.149-150, eng] **44-4082**
- See *also*: Computerized simulation; Environment simulation; Models
- Sinks**
- See *also*: Heat sinks
- Sintering**
- See *also*: Ice sintering
- Site surveys**
- Establishment of *Salix alaxensis* on a gravel pad in arctic Alaska. Bishop, S.C., et al. [1989, p.575-583, eng] **44-321**
- Methane flux time series for tundra environments. Whalen, S.C., et al. [1988, p.399-409, eng] **44-374**

Site surveys (cont.)

- On the generation of stream runoff in till soils. Rodhe, A., 1989, p.1-8, eng. **44-375**
- Rock glacier dynamics in the Tian Shan Mountains. Cui, Z.J., et al., 1989, p.1286-1291, eng. **44-494**
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- Hydrology of small tributary streams in a subarctic wetland. Woo, M.K., et al., 1989, p.1557-1566, eng. **44-1010**
- Wetland vegetation near Old Crow, northern Yukon. Ovenden, L., et al., 1989, p.954-960, eng. **44-1025**
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- Debris accumulation patterns on talus slopes in Surprise Valley, Alberta. Luckman, B.H., 1988, p.247-278, eng. **44-1030**
- Factors affecting moss and lichen distribution in Canadian forest tundra. Robinson, A.L., et al., 1989, p.25-48, eng. **44-1202**
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- Skid resistance**
- Test of tires to prevent skid on snow and ice. Murakuni, M., et al., 1987, p.123-139, jpn. **44-1309**
- U-C-Tyre grip adhesive. Horiuchi, K., et al., 1988, p.239-244, jpn. **44-2691**
- Skid resistance of roads using chemical ice prevention. Murakuni, M., et al., 1988, p.249-254, jpn. **44-2693**
- Skid resistance of winter tires. Murakuni, M., et al., 1989, p.215-220, jpn. **44-2881**
- Performance of nonmetal tire chains in Hokkaido. Sato, H., et al., 1989, p.97-102, jpn. **44-3567**
- Skis**
- Kinetic friction between ski and snow. Lehtovaara, A., 1989, 52p., eng. **44-1241**
- Model for the turning snow ski. Renshaw, A.A., et al., 1989, p.721-736, eng. **44-1843**
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- Ski friction and thermal response. Warren, G.C., et al., 1989, p.223-225, eng. **44-3924**
- Method for testing the gliding quality of skis. Spring, E., 1988, p.9-14, eng. **44-4463**
- Friction between plastics and ice. Lehtovaara, A., 1984, p.14-26, eng. **44-4464**
- Slab avalanches**
- See *avalanche*; Snow slides
- Sleds**
- Technical feasibility test of mobile oversnow transport with sled. Starnes, D.B., 1989, 103p. + append., eng. **44-477**
- Bibliography of patents for snowmobiles and motorized sleds (1970-1988). 1988, 116p., eng. **44-794**
- Bibliography of patents for sleds and sledding (1970-1988). 1988, 41p., eng. **44-795**
- Towing cables and sledges over antarctic snow. Smith, A.M., et al., 1989, p.77-82, eng. **44-830**
- Multipurpose sled of the mountain rescue patrol. Emin, R., 1990, p.25-26, fre. **44-3415**
- Slide sections**
- See *avalanche*; Microscope slides; Thin sections
- Sliding**
- Avalanche formation in the Nissho Pass, Hokkaido. Shimizu, H., et al., 1988, p.35-44, jpn. **44-730**
- Testing methods on sea ice-concrete sliding abrasion. Itoh, Y., et al., 1988, p.89-96, eng. **44-1131**
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- Method for testing the gliding quality of skis. Spring, E., 1988, p.9-14, eng. **44-4463**
- Friction between plastics and ice. Lehtovaara, A., 1984, p.14-26, eng. **44-4464**
- Dislocation mobility for non-basal glide in ice measured by *in situ* X-ray topography. Hondoh, T., et al., 1990, p.89-102, eng. **44-4495**
- See *avalanche*; Basal sliding
- Slope orientation**
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Effect of slope exposure on snow cover distribution in the mountains. Severskii, S.I., 1989, p.152-162, rus. **44-3243**

Slope processes

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- Prediction trial of snowslip danger slopes by the personal computer. Moushi, M., et al., 1985, p.231-233, jpn. **44-2320**
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- Weathering trends in fine debris beneath a snow patch. Niwot Ridge, Front Range, Colorado. Thorn, C.E., et al., 1989, p.307-321, eng. **44-2636**
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- Ground ice in the deposits on slopes of Tien Shan and Pamirs. Ermolin, E.D., 1989, p.3-13, rus. **44-3229**
- Deposits on slopes of the Adycha valley. Liubomirov, A.S., 1989, p.13-20, rus. **44-3230**
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- Slope protection for gravel islands, Beaufort Sea. Hayley, D.W., et al., 1988, p.431-439, eng. **44-1160**
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- Sludge dewatering by natural freeze-thaw. Martel, C.J., 1990, p.116-122, eng. **44-3750**
- Technology transfer. 1989, p.42, eng. **44-3789**

Slush

- Advanced energy transmission fluids for district heating and cooling. Kasza, K.E., et al., 1987, p.202-211, eng. **44-15**
- Potential of slush ice district cooling. Metz, P.D., et al., 1987, p.449-459, eng. **44-18**
- Slush-flow questionnaire. Onesti, I.J., et al., 1989, p.226-230, eng. **44-579**
- Ice crystallization developments for the butane direct-contact process. Wiegandt, H.F., et al., 1987, p.107-126, eng. **44-1787**
- Fresh water from the sea, a new process. Maguire, J.B., 1987, p.155-162, eng. **44-1789**
- Determining ice content of a fine ice slurry from density measurements. Dickey, L.C., et al., 1989, p.2033-2036, eng. **44-2006**
- New techniques for slush ice run measurement in Poland. Dobrowolski, A., et al., 1989, p.46-54, eng. **44-2022**
- Inner structures and surface morphology of ice jams. Grzes, M., 1989, p.66-75, eng. **44-2024**
- Slushflows and their geomorphologic effects. Nyberg, R., 1989, p.185-198, eng. **44-2621**
- Fundamental study on slush avalanche on the slope of Mt. Fuji. Dohi, N., et al., 1989, p.17-23, jpn. **44-2632**
- On the numerical solution of Stefan problems in temperate ice. Hutter, K., et al., 1990, p.41-48, eng. **44-3720**
- Sediment transport in freshwater- and seawater-slush ice slurries. Clayton, J.R., Jr., et al., 1990, p.111-114, eng. **44-3831**
- See *avalanche*; Wet snow
- Slushes**
- Freeze front effects on sediment distribution in seawater-slush ice slurries. Clayton, J.R., Jr., et al., 1990, p.145-151, eng. **44-2399**
- Snow**
- NASA sea ice and snow validation plan. Cavalieri, D.J., et al., 1987, 81p., eng. **44-1218**
- Potential of SAR in a snow and glacier monitoring system. Rott, H., et al., 1986, p.25-35, eng. **44-1238**
- Proceedings of the NIPR Symposium on Polar Meteorology and Glaciology, No.2. Kawaguchi, S., ed., 1989, 182p., eng. **44-1799**
- WDC-A for Glaciology antarctic-related activities, 1987. Hanson, C.S., et al., 1988, p.218-219, eng. **44-2141**
- Anthropogenic aerosols in a haze and snow coupled model. Blanchet, J.P., et al., 1984, p.269-272, eng. **44-3435**
- Proceedings of the NIPR Symposium on Polar Meteorology and Glaciology, No.3. Kawaguchi, S., ed., 1990, 114p., eng. **44-3544**
- See *avalanche*; Artificial snow; Blowing snow; Colored snow; Slush; Wet snow
- Snow accumulation**
- Satellite monitoring of snow cover and snowmelt runoff in China. Zeng, Q.Z., et al., 1988, p.52-66, eng. **44-266**
- Water conservation and protection functions of forests of Sakhalin. Klitsov, A.P., 1986, p.51-55, eng. **44-317**
- Snow accumulation in the polar regions. Zhidkov, V.A., et al., 1989, p.118-124, rus. **44-345**
- Seasonal snow distribution on Mt. Elbrus. Barzhev, A.B., et al., 1989, p.154-160, rus. **44-353**
- Snow cover stability in the Dukant River basin, Tien Shan. Kanaev, L.A., et al., 1989, p.164-168, rus. **44-355**
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- Snow management increases alfalfa yields. Waddington, J., et al., 1989, p.134-137, eng. **44-515**
- Snow accumulation in an alpine watershed, Sierra Nevada, CA. Elder, K., et al., 1989, p.56-63, eng. **44-549**
- Hydrology of the Biafo Glacier, Karakoram range, Himalaya Mts. Hewitt, K., et al., 1989, p.103-108, eng. **44-556**
- Influence of strong winds on snow distribution and avalanche activity. Meister, R., 1989, p.195-201, eng. **44-573**
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- Numerical simulation of snowdrift development. Uematsu, T., et al., 1989, p.265-268, eng. **44-587**
- Snow accumulation determined by glaciochemistry. Karakoram, Pakistan. Wake, C.P., 1989, p.279-284, eng. **44-590**
- Characteristics of snow along the Japan Sea coast. Kawashima, K., et al., 1988, p.15-24, jpn. **44-728**
- Avalanche formation in the Nissho Pass, Hokkaido. Shimizu, H., et al., 1988, p.35-44, jpn. **44-730**
- Regional characteristics of snow damage in Japan. Yamada, T., et al., 1988, p.57-72, jpn. **44-732**
- Long-term variability in snow accumulation and avalanche activity. Borsheva, N.M., et al., 1989, p.133-138, rus. **44-1394**
- JARE-28 winter activities, 1987. Ayukawa, M., 1989, p.234-268, jpn. **44-1471**
- Snow accumulation on various topographic forms in the Khibiny Mountains. Kontsevaia, V.V., et al., 1989, p.232-240, rus. **44-1594**
- Global annual snow accumulation by months. Schutz, C., et al., 1988, 85p., eng. **44-2059**
- DDT II, computerized lake-effect snow forecasts. Dockus, D.A., 1988, p.18-26, eng. **44-2088**

- Magic chart for forecasting snow amounts. Chaston, P.R., [1989, p.20-22, eng] **44-2089**
- Variability of snowfall in eastern United States. Faiers, G.E., [1989, p.23-25, eng] **44-2090**
- Snow and avalanches in the Swiss Alps, winter 1987-88. [1989, 156p, ger] **44-2112**
- Operational snow accumulation and snowmelt modeling. Vehviläinen, B., [1989, p.213-222, eng] **44-2193**
- Snow accretion experiments on hot metallic plate. Fujii, T., et al, [1985, p.513-515, jpn] **44-2340**
- Snow cover, freezing and thawing of soil in pine forests. Korepanov, A.A., [1989, p.64-68, rus] **44-2352**
- Model study of drift accumulation of a snow fence. Cookson, P., [1987, 75p., eng] **44-2952**
- Tillage and crop residue effects on soil frost depth. Rickert, D.H., et al, [1990, p.31-35, eng] **44-2963**
- Tillage and residue management systems affect winter soil temperatures. Cullum, R.F., et al, [1990, p.239-246, eng] **44-2990**
- Impact of frozen soil on prairie hydrology. Granger, R.J., et al, [1990, p.247-256, eng] **44-2991**
- Aircraft operation in the Arctic. Meanor, R.W., [1989, p.56-84, eng] **44-3138**
- Response of mountain big sagebrush to induced snow accumulation. Sturges, D.L., [1989, p.1035-1041, eng] **44-3169**
- Icing/de-icing problems. Jørgensen, T.S., [1987, p.45-61, eng] **44-3312**
- Snow-radar: an efficient tool for areal snow pack assessments. Killingtveit, A., et al, [1988, p.259-271, eng] **44-3324**
- Determination of a Z-R relationship for snowfall using a radar and high sensitivity snow gauges. Fujiyoshi, Y., et al, [1990, p.147-152, eng] **44-3418**
- JARE glaciological data collected in 1988-1989. Watanabe, O., et al, [1990, 77p., eng] **44-3448**
- Some characteristics of falling snow. Mellor, M., et al, [1988, p.201-206, eng] **44-3511**
- Eastern Snow Conference, 46th, 1989. [1989, 307p., eng] **44-3993**
- Chemical studies of snow in Japan. Suzuki, K., [1989, p.14-26, eng] **44-3995**
- Comparison of measurements of snowfall by radar using an S-band and an X-band transmitter. Giguere, A., [1989, p.82-98, eng] **44-4001**
- Climate at King Sejong Station, 1988-1989. Lee, B.Y., et al, [1990, p.47-57, kor] **44-4252**
- Environment around King Sejong Station, 1988-1989. Chang, S.K., et al, [1990, p.59-65, kor] **44-4253**
- Seasonal snowfall totals in northern New England: recent trends and variability. Suckling, P.W., et al, [1988, p.14-25, eng] **44-4275**
- Snow acoustics**
- Development and performance of a Canadian automatic snow depth sensor. Goodison, B.E., et al, [1988, p.137-144, eng] **44-243**
- Snow cover stability in the Dukan River basin, Tien Shan. Kanaev, L.A., et al, [1989, p.164-168, rus] **44-355**
- Studying avalanche formation conditions using acoustic methods. Epifanov, V.P., et al, [1989, p.122-128, rus] **44-1580**
- Acoustic pulse propagation above grassland and snow. Albert, D.G., et al, [1990, p.93-100, eng] **44-1877**
- Imaging of objects under snow by ultrasound. Ikegami, M., et al, [1988, p.152-156, jpn] **44-2676**
- Snow air interface**
- Cloud/cryosphere interactions. Final report Nov. 85-Oct. 88. Kukla, G., et al, [1989, 46p., eng] **44-995**
- Vertical distribution of aerosol particles near the ground surface. Kikuchi, K., et al, [1987, p.963-971, eng] **44-1305**
- Air movement in snow due to windpumping. Colbeck, S.C., [1989, p.209-213, eng] **44-1547**
- Snow cover effect on mesoscale atmospheric circulation. Cramer, J., [1988, 143p., eng] **44-3378**
- Snow-surface temperature analysis. Bates, R.E., et al, [1989, p.109-116, eng] **44-4003**
- Snow collapse**
- See also: Snowquakes
- Snow compaction**
- Measurements of friction coefficients of snow blocks. Casassa, G., et al, [1989, p.40-44, eng] **44-546**
- Snow compaction treatment. Tamura, T., et al, [1986, p.627-632, jpn] **44-2509**
- Snow removal by snow block. Toma, S., [1985, p.139-156, jpn] **44-3172**
- Snow composition**
- Winter cover of a high-mountain Mediterranean lake (Estany Redó, Pyrenees). Catalan, J., [1989, p.519-527, eng] **44-6**
- Measuring the chemical composition of snow cores. Taylor, H.E., [1987, p.55-69, eng] **44-78**
- Formation of the chemical composition of snow in polluted spruce forests. Evtugina, Z.A., [1988, p.55-59, rus] **44-195**
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- Constitutive theory for snow as a continuous multiphase mixture. Adams, E.E., et al, [1989, p.553-572, eng] **44-274**
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- Snow and rain washout coefficients for inorganic iodine vapor. Engelmann, R.J., et al, [1965, 6p., eng] **44-1103**
- Variations of ionic species in a forest snowcover during spring melt. Jones, H.G., et al, [1987, p.271-282, eng] **44-1686**
- Ice-core records and ozone depletion potential for a proxy ozone record. Mayewski, P.A., et al, [1988, p.64-68, eng] **44-1698**
- Chemical composition of snow drift on Mizuho Plateau. Osada, K., et al, [1989, p.70-78, eng] **44-1803**
- Snow chemistry at Showa Station. Kanamori, S., et al, [1989, p.79-87, eng] **44-1804**
- Snow cover and maximum leachate discharge of a sanitary landfill. Ettala, M., [1986, p.187-202, eng] **44-1817**
- Origin of non-sea-salt sulphate in the Mount Logan ice core. Monaghan, M.C., et al, [1990, p.245-248, eng] **44-1849**
- Snow chemistry over an inland high plateau, Queen Maud Land. Kamiyama, K., et al, [1989, p.18,515-18,519, eng] **44-1942**
- Black snow episodes in Austria. Malissa, H., et al, [1989, p.140-150, eng] **44-1948**
- Ion elution through shallow homogeneous snow. Bales, R.C., et al, [1989, p.1869-1877, eng] **44-2125**
- Seasonal variations in Greenland Ice Sheet pollutants. Davidson, C.I., et al, [1989, p.2483-2493, eng] **44-2261**
- Soot in the atmosphere and snow surface of Antarctica. Warren, S.G., et al, [1990, p.1811-1816, eng] **44-2383**
- Global monitoring at the United States baseline stations with emphasis on precipitation chemistry measurements. Artz, R.S., [1989, p.255-267, eng] **44-2384**
- Studies on acid snow. Araki, K., et al, [1986, p.331-335, jpn] **44-2476**
- Snowfall Chemistry Collector Intercomparison Test (SCCIT). Sisterson, D.L., et al, [1989, p.477-488, eng] **44-2750**
- Spatial variability of pollutants in snow cover in the USSR. Belikova, T.V., et al, [1989, p.45-55, rus] **44-2849**
- Effect of aerosols on pH of snow. Kumai, M., [1990, p.17-30, eng] **44-2925**
- Origins and variations of nitrate in south polar precipitation. Legrand, M.R., et al, [1990, p.3493-3507, eng] **44-3068**
- Sliding, but on which snow? La Feuille, J., [1990, p.9-12, fre] **44-3201**
- Geochemistry of glaciers of Ak-Shyyrak. Makarov, V.N., et al, [1989, p.130-143, rus] **44-3241**
- Volatile fatty acids in snow drift. Ohta, K., et al, [1990, p.36-42, eng] **44-3545**
- Transport rates of chemical constituents by drifting snow at Mizuho Station. Osada, K., et al, [1990, p.43-50, eng] **44-3546**
- Geochemistry of glaciers in China. Wang, P., [1989, p.122-137, chi] **44-3888**
- Chemical studies of snow in Japan. Suzuki, K., [1989, p.14-26, eng] **44-3995**
- Does snow have ion chromatographic properties. Hewitt, A.D., et al, [1989, p.165-171, eng] **44-4009**
- Snow algae in upstate New York and Quebec Province. Hoham, R.W., et al, [1989, p.196-200, eng] **44-4012**
- Chemistry of snow pack accumulation and melt in a deciduous forest. Robertson, E., et al, [1989, p.219-222, eng] **44-4016**
- Chemical migration in snowpack. Murphey, B.B., et al, [1989, p.282-286, eng] **44-4028**
- Recent increase in nitrate concentration of antarctic snow. Mayewski, P.A., et al, [1990, p.258-260, eng] **44-4038**
- Glaciochemical survey of the Summit region, Greenland. Mayewski, P.A., et al, [1990, p.186-190, eng] **44-4190**
- Review of Central Asian glaciochemical data. Wake, C.P., et al, [1990, p.301-306, eng] **44-4214**
- Forest fires and the chemical composition of snow cover. Ivanov, A.V., et al, [1989, p.3-14, rus] **44-4221**
- Snow compression**
- Techniques for gas gun studies of shock wave attenuation in snow. Brown, J.A., et al, [1988, p.657-660, eng] **44-628**
- Introduction of Mitsubishi snow to ice converter. Sakai, K., et al, [1988, p.530-535, jpn] **44-2722**
- Snow cornices**
- Formation process and direction distribution of snow cornices. Kobayashi, D., et al, [1988, p.131-136, eng] **44-3504**
- Snow cover**
- Snow cover and glacier variations. Colbeck, S.C., ed, [1989, 111p., eng] **44-165**
- Contribution to the modelling of both quality and quantity of seasonal snowcover. Babakova, G., et al, [1988, p.117-129, eng] **44-241**
- Excessive pressure in the pores of a snow cover. Samoliuk, V.I., [1989, p.169-172, rus] **44-356**
- Low-relief topographic enhancement in a Landsat snow-cover scene. Eytan, J.R., [1989, p.105-118, eng] **44-524**
- Antarctic mosaic compiled from DMSP imagery. Scharfen, G.R., [1989, p.302, eng] **44-663**
- Technogenic pollution of the snow cover on Svalbard. Ilina, E.A., [1989, p.17-21, eng] **44-1000**
- RADTRAN microwave surface emission models. Isaacs, R.G., et al, [1989, p.433-440, eng] **44-1325**
- Glaciers, snow cover, and avalanches in the mountains of Kazakhstan. Gorbunov, A.P., ed, [1989, 224p., rus] **44-1384**
- Aerial photography in BEPERS Pilot Study. Kemppainen, H., et al, [1988, p.107-117, eng] **44-1430**
- Snow cover model for avalanche forecasting. Brun, E., et al, [1989, p.333-342, eng] **44-1894**
- Climate changes during the past century. Li, P.J., [1989, p.193-202, chi] **44-2414**
- Stereological characterization of dry alpine snow for microwave remote sensing. Davis, R.E., et al, [1989, p.245-251, eng] **44-2598**
- Review of signature studies for microwave remote sensing of snowpacks. Matzler, C., et al, [1989, p.253-265, eng] **44-2599**
- Microwave radiometry of snow. Hallikainen, M.T., [1989, p.267-275, eng] **44-2600**
- Microwave emission of snow-covered and snow-free terrain from satellite measurements. Aschbacher, J., et al, [1989, p.289-295, eng] **44-2602**
- Modelling of microwave emission and scattering from snow and soil. Fung, A.K., et al, [1989, p.297-306, eng] **44-2603**
- Active and passive remote sensing of ice. Final report 1 Oct. 88-30 Sep. 89. Kong, J.A., [1989, 15p., eng] **44-2654**
- Influence of atmospheric carbon on snow cover albedo in Poland. Sztylek, A., [1989, p.1193-1196, eng] **44-2786**
- Snow cover affected by a city. Prokacheva, V.G., et al, [1989, 176p. + appendix, rus] **44-2804**
- Multifair trends in snowpack ion accumulation and loss, northern Michigan. Stottleymer, R., et al, [1990, p.721-737, eng] **44-3349**
- Sea ice thickness versus impulse radar time-of-flight data. Kovacs, A., et al, [1990, p.91-98, eng] **44-3543**
- Problems of modern hydrology. Shiklomanov, I.A., ed, [1989, 327p., rus] **44-3908**
- Applications of ISES for snow, ice, and sea state. Chang, A.T.C., et al, [1990, p.189-196, eng] **44-3949**
- Computerized methods to analyze variations in airborne snow water equivalence estimates. Carroll, S.S., et al, [1990, p.35-46, eng] **44-3983**
- Studies of snow chemistry in the Scottish Highlands. Davies, F.D., et al, [1989, p.1-13, eng] **44-3994**
- Spring melting at an Alpine site: the influence of mineral dust. Delmas, V., [1989, p.36-44, fre] **44-3997**
- Snow algae in upstate New York and Quebec Province. Hoham, R.W., et al, [1989, p.196-200, eng] **44-4012**
- Chemistry of snow pack accumulation and melt in a deciduous forest. Robertson, E., et al, [1989, p.219-222, eng] **44-4016**
- Major ion chemistry of the pre-melt snowpack, Turkey Lake watershed, 1980-1988. Semkin, R.G., et al, [1989, p.277-281, eng] **44-4027**
- Chemical migration in snowpack. Murphey, B.B., et al, [1989, p.282-286, eng] **44-4028**
- Buried snowbank ice in the central and northern Yukon Territory. Pollard, W.H., [1989, p.292-297, eng] **44-4030**
- Snow cover energy and mass balance model in a balsam fir forest. Barry, R., et al, [1990, p.1079-1092, eng] **44-4130**
- Forest fires and the chemical composition of snow cover. Ivanov, A.V., et al, [1989, p.3-14, rus] **44-4221**
- Snow cover distribution**
- Microwave imagery of snow cover, upper Colorado River basin. Josberger, F.G., et al, [1989, p.73-84, eng] **44-114**
- Recent trends and regional differentiation of snow variation in China. Li, P.J., [1989, p.3-9, eng] **44-166**
- Snowmelt and water percolation in snow and firn. Bozhinski, A.N., et al, [1989, p.11-18, eng] **44-167**
- Monitoring of snow cover and surface runoff in Greenland by use of NOAA-AVHRR satellite data. Sogaard, H., et al, [1988, p.179-188, eng] **44-247**
- Satellite monitoring of snow cover and snowmelt runoff in China. Zeng, Q.Z., et al, [1988, p.52-66, eng] **44-266**
- Groundwater regime and runoff in forests and swamps in Siberia. Konstantinov, V.D., [1986, p.10-16, eng] **44-316**
- Snow cover distribution and glacier mass transfer. Krenke, A.N., [1989, p.27-34, rus] **44-332**
- Glacio-nival phenomena in the Polar Urals. Khodakov, V.G., et al, [1989, p.110-118, rus] **44-344**
- Snow accumulation in the polar regions. Zhidkov, V.A., et al, [1989, p.118-124, rus] **44-345**
- Seasonal snow distribution on Mt. Elbrus. Bazhev, A.B., et al, [1989, p.154-160, rus] **44-353**

Snow cover distribution (cont.)

- Interannual variations in snowpack in the Rocky Mountain region. Doerken, N.J., et al. [1989, p.21-30, eng] **44-500**
- Mapping snow cover with satellite imagery. Holroyd, E.W., III, et al. [1989, p.59-68, eng] **44-505**
- Good solution to the wilderness snow sensor problem. Brandow, C.A., [1989, p.108-117, eng] **44-510**
- Snow line estimates derived from aerial surveys. Allen, M.W., et al. [1989, p.145-148, eng] **44-518**
- Glacier outburst floods at Mount Rainier, Washington State, U.S.A. Driedger, C.L., et al. [1989, p.51-55, eng] **44-548**
- Influence of strong winds on snow distribution and avalanche activity. Meister, R., [1989, p.195-201, eng] **44-573**
- Glacier surveys in Qinghai Province by remote sensing. Feng, X.Z., et al. [1988, p.23-28, chj] **44-632**
- Snow survey of Qilian Mts. by remote sensing. Liu, Z.K., et al. [1988, p.29-39, chj] **44-633**
- Remote sensing of snow cover and spring runoff, Qilian Mts. Zeng, Q.Z., et al. [1988, p.40-48, chj] **44-634**
- Snow cover of the Heihe River in the Qilian Mts. Chen, X.Z., [1988, p.49-54, chj] **44-635**
- Snow cover on the Heihe River in the Qilian Mts. Wang, J., [1988, p.55-63, chj] **44-636**
- Estimation of snow cover using photoelectric processing. Pu, Y.B., et al. [1988, p.85-93, chj] **44-639**
- Snow cover mapping using Landsat data. Chen, X.Z., et al. [1988, p.100-105, chj] **44-641**
- Permafrost distribution in the Qilian Mts. region. Liang, F.X., et al. [1988, p.120-127, chj] **44-643**
- Characteristics of snow along the Japan Sea coast. Kawashima, K., et al. [1988, p.15-24, jpn] **44-728**
- Modelling seasonally freezing ground conditions, report 1. Anderson, M.G., et al. [1987, 27p., eng] **44-894**
- Modelling seasonally freezing ground conditions, report 2. Anderson, M.G., et al. [1987, 18p., eng] **44-895**
- Satellite surveillance of ice and snow cover in French Alps. Dedieu, J., et al. [1988, p.371-375, fre] **44-954**
- Snow water equivalent in a mountain basin using satellite data. Rangó, A., et al. [1989, p.740-745, eng] **44-1201**
- Snow survey of Great Britain 1988/89. [1989, 21p., eng] **44-1224**
- Remote sensing of snow reflectance and snow cover characteristics. Dozier, J., et al. [1987, 93p., eng] **44-1245**
- Satellite discrimination of snow and clouds. Allen, R.C., [1987, 114p., eng] **44-1249**
- Detection of clouds in Antarctica from infrared satellite data. Yamanouchi, T., et al. [1987, p.949-962, eng] **44-1304**
- Test of snowmelt-runoff model for a major river basin in western Himalayas. Dey, B., et al. [1989, p.167-178, eng] **44-1323**
- Effect of vegetation on the distribution of snow cover in mountains. Severskiĭ, S.I., [1989, p.138-145, rus] **44-1395**
- Preliminary research on the acidity of snow cover on the Changbai mountains. Chen, D.L., et al. [1988, p.107-116, eng] **44-1450**
- Predicting rangeland snowmelt runoff with SPUR hydrology model. Wilcox, B.P., et al. [1989, p.1351-1357, eng] **44-1560**
- Estimating snow cover parameters on mountain slopes. Golubev, V.N., et al. [1989, p.111-122, rus] **44-1579**
- Satellite cloud climatology in polar regions. Raschke, E., [1987, 80p., eng] **44-1605**
- Electromagnetic wave probing of ice and snow cover. Kong, J.A., [1988, 6p., eng] **44-1607**
- Eurasian snow cover and seasonal forecast of Indian summer monsoon rainfall. Bhanu Kumar, O.S.R.U., [1988, p.515-525, eng] **44-1681**
- Snow physics, avalanches, mudflows. Bolov, V.R., ed. [1989, 107p., rus] **44-1776**
- Relationships between monthly totals of solid precipitation in high altitude zones. Samukashvili, R.D., [1989, p.10-19, rus] **44-1778**
- Charskaya Basin - geographical proving ground of the BAM zone. Naprasnikov, A.T., et al. [1987, 98p., rus] **44-1875**
- Remote sensing of snow and evapotranspiration. Schmugge, T., ed. [1985, 167p., eng] **44-1999**
- Global annual snow accumulation by months. Schutz, C., et al. [1988, 85p., eng] **44-2059**
- Regional characteristics of the snow cover in Hokkaido. Akitaya, E., et al. [1985, p.213-218, jpn] **44-2318**
- Snow cover estimates through calculations of ground temperature and frost depth. Cherniad'ev, V.P., [1985, p.31-37, rus] **44-2368**
- Snow-and-ice phenomena in the Polar Urals. Khodakov, V.G., et al. [1989, p.119-130, eng] **44-2440**
- Snow gages of the Govt Industrial Development Lab, Hokkaido. Sayama, S., et al. [1988, p.157-163, jpn] **44-2677**
- Snowfall distribution in Hokkaido. Shibuya, T., [1989, p.541-546, jpn] **44-2912**
- Perennial snowfield in Daisetsu Mountains, 1989. Takahashi, S., et al. [1989, p.65-70, jpn] **44-3044**
- Water equivalent of snow on the running area of mudflow. Yamada, T., et al. [1989, p.41-49, jpn] **44-3125**
- Effect of slope exposure on snow cover distribution in the mountains. Severskiĭ, S.I., [1989, p.152-162, rus] **44-3243**
- Satellite sensor estimates of northern hemisphere snow volume. Chang, A.T.C., et al. [1990, p.167-171, eng] **44-3352**
- Evidence of recent changes in global snow and ice cover. Barry, R.G., [1990, p.121-127, eng] **44-3393**
- Snow cover distribution in Honshu from satellite imagery. Muramatsu, I., et al. [1990, p.1-11, jpn] **44-3401**
- Transport rates of chemical constituents by drifting snow at Mizuho Station. Osada, K., et al. [1990, p.43-50, eng] **44-3546**
- Global snow variations derived from SMMR: preliminary results. Chang, A.T.C., et al. [1990, p.213-217, eng] **44-3853**
- Using aerial gamma surveys of snow cover to forecast spring flood runoff. Vershinina, L.K., [1989, p.82-96, rus] **44-3910**
- One-year lag between heavy snow years in Eurasia and North America. Iwasaki, T., [1990, p.124-126, eng] **44-4176**
- Digital analysis of blue ice extent on satellite images. Orheim, O., et al. [1990, p.211-215, eng] **44-4196**
- Land albedo and snow cover under climate warming. Balkova, I.M., [1989, p.65-74, rus] **44-4223**
- Daily snow data in the United States. Robinson, D.A., [1989, p.120-130, eng] **44-4261**
- Snow cover effect**
- Phenological inversions in alpine terrain (western Tien Shan). Lynov, I.U.S., [1984, p.185-188, eng] **44-281**
- Impact of vehicles on snow, soil and vegetation. Zhidkov, V.A., et al. [1989, p.124-131, rus] **44-346**
- Simulation of soil frost depth and effect on runoff. Vehviläinen, B., et al. [1989, p.9-24, eng] **44-376**
- Snow cover and winter seismic exploration. Felix, N.A., et al. [1989, p.62-68, eng] **44-492**
- Hydrologic modeling with remotely sensed data. Kite, G., [1989, p.1-8, eng] **44-498**
- Development and certification of a visibility-range monitor by image processing. Ishimoto, K., et al. [1989, p.117-119, eng] **44-558**
- Snow cover, snowmelt and runoff in the Himalayan river basins. Dey, B., et al. [1988, 37p., eng] **44-624**
- Remote sensing of global snowpack energy and mass balance. Benson, C.S., [1989, 11p., eng] **44-714**
- Mapping very low surface temperature in the Scottish Highlands using NOAA AVHRR data. Collier, P., et al. [1989, p.1519-1529, eng] **44-773**
- Effects of snow on landmarks in K(sub u) band SAR. Murray, M., [1989, 127p., eng] **44-786**
- Uneven snow cover and snow water equivalent estimates. Carroll, S.S., et al. [1989, p.1505-1510, eng] **44-835**
- C-14 chronology and snow-patch development in the Lac à l'Eau Claire area, northern Quebec. Mathieu, C., et al. [1987, p.97-108, fre] **44-898**
- Cloud/cryosphere interactions. Final report Nov. 85-Oct. 88. Kukla, G., et al. [1989, 46p., eng] **44-995**
- Vertical distribution of aerosol particles near the ground surface. Kikuchi, K., et al. [1987, p.963-971, eng] **44-1305**
- Drama under the snow. Burdasov, V., [1988, p.42-45, eng] **44-1463**
- Snow effect on power line insulators. Imano, Y., et al. [1988, 49p., jpn] **44-1504**
- Snow cover and avalanche parameters for designing anti-avalanche structures. Voitkovskii, K.F., et al. [1989, p.40-45, rus] **44-1569**
- West Siberian spring snow cover and East Asian June 500mb height. Kodera, K., et al. [1989, p.51-54, eng] **44-1614**
- Impact of land surface processes on climatic change. Kondrat'ev, K.I.A., [1989, p.1170-1189, eng] **44-1832**
- Thermal regime of the soils near the northern Yenisei. Skriabin, P.N., et al. [1989, 175p., rus] **44-1854**
- Subice suction corer for sampling epontic ice algae. Welch, H.E., et al. [1988, p.562-568, eng] **44-1863**
- Zonal distribution of short wave diffuse radiation over snow cover. Beschastnov, S.P., et al. [1989, p.52-57, rus] **44-1937**
- Hydrothermal problems of frozen soils. Savvinov, D.D., ed. [1988, 126p., rus] **44-1958**
- Potential effectiveness of thermal melioration of frozen soil. Romanov, P.G., et al. [1988, p.104-113, rus] **44-1968**
- Forecasting multi-year variations in the thermal regime of soils. Skriabin, P.N., et al. [1988, p.113-121, rus] **44-1969**
- Influence of some environmental factors on the evolution of river ice covers. Kolodko, J., [1989, p.116-121, eng] **44-2028**
- Snow cover, freezing and thawing of soil in pine forests. Korepanov, A.A., [1989, p.64-68, rus] **44-2352**
- Primary factors affecting the radar image tint. Klishes, T.M., [1985, p.62-68, rus] **44-2375**
- Influence of a snow field on the track of a low pressure center. Morris, T.R., [1989, p.14-18, eng] **44-2390**
- Impact of vehicles on snow, soil, and vegetation cover in the North. Zhidkov, V.A., et al. [1989, p.131-141, eng] **44-2441**
- Radar for finding persons buried in snow. Sakamoto, Y., et al. [1986, p.107-110, jpn] **44-2453**
- Microwave brightness temperatures of the Greenland Ice Sheet. Zhang, H., et al. [1989, p.277-287, eng] **44-2601**
- Gas survey in the snow of Kuznetsk basin. Vyshemirskii, V.S., et al. [1989, p.182-183, rus] **44-2605**
- Lichen mortality due to late-lying snow: results of a transplant study. Benedict, J.B., [1990, p.81-89, eng] **44-2663**
- Role of land ice and snow in climate. Kuhn, M.H., [1989, p.17-28, eng] **44-2782**
- Radar imaging of objects buried in snow. Mitsuhashi, R., et al. [1989, p.569-573, jpn] **44-2918**
- Cryic thermal regime of soils. Smith, C.A.S., [1990, p.11-20, eng] **44-2961**
- Tillage and crop residue effects on soil frost depth. Rickerl, D.H., et al. [1990, p.31-35, eng] **44-2963**
- Soil water and solutes in soils after freezing. Hofmann, L.L., et al. [1990, p.263-270, eng] **44-2993**
- Chemical precipitation in stabilization ponds in cold climates. Ødegaard, H., et al. [1987, p.71-77, eng] **44-3311**
- Snow cover effect on mesoscale atmospheric circulation**
- Cramer, J., [1988, 143p., eng] **44-3378**
- Relation between landslides and snow. Shuzui, H., et al. [1988, p.13-18, jpn] **44-3436**
- Wheeled versus tracked vehicle snow mobility test program. Green, C.E., et al. [1989, 19p., eng] **44-3759**
- Snow cover effects on antarctic sea ice thickness. Ackley, S.F., et al. [1990, p.16-21, eng] **44-3810**
- Electrical, physical and microwave properties of snow-covered floating ice. Garrity, C., [1990, p.57-61, eng] **44-3819**
- Remote sensing of saline ice covered with snow. Lohanick, A.W., [1990, p.61-67, eng] **44-3820**
- Hydrophysical studies of soils and snow cover. Kaliuzhnyi, I.L., et al. [1989, p.205-220, rus] **44-3912**
- Influence of snowcover on the growth of antarctic fast ice. Crocker, G.B., [1989, p.156-164, eng] **44-4008**
- Snow and ground thermal regimes in a subarctic woodland. Desrochers, D.T., [1989, p.172-183, eng] **44-4010**
- Litter decomposition beneath deep snow in temperate climates. Taylor, B.R., [1989, p.223-227, eng] **44-4017**
- Variability of snowcover as a factor in forest decline. Auclair, A.N.D., [1989, p.228-231, eng] **44-4018**
- Tree morphology as an estimator of average snow depth. Wooldridge, G.L., et al. [1989, p.232-236, eng] **44-4019**
- Explosive waves in snow. Liakhov, G.M., et al. [1990, p.493-499, eng] **44-4469**
- Relation of vegetation pattern to snow cover on an antarctic hill. Kappen, L., et al. [1990, p.209-220, eng] **44-4491**
- Thermal conditions over the Great Wall Station, summer 1987-1988. Bian, L., et al. [1990, p.73-81, chj] **44-4551**
- Snow cover stability**
- Constitutive theory for snow as a continuous multiphase mixture. Adams, E.E., et al. [1989, p.553-572, eng] **44-274**
- Snow cover stability in the Dukat River basin, Tien Shan. Kanaev, L.A., et al. [1989, p.164-168, rus] **44-355**
- Snowpack changes at a low elevation site. Kattelmann, R., et al. [1989, p.141-144, eng] **44-517**
- Supporting forces and stability of snow-slab avalanches - a parameter study. Lackinger, B., [1989, p.140-145, eng] **44-563**
- Mathematical model for instability in snow gliding motion. Nohguchi, Y., [1989, p.211-214, eng] **44-576**
- Snow cover cracking on mountain slope. Akitaya, E., et al. [1988, p.25-33, jpn] **44-729**
- Avalanche formation in the Nishso Pass, Hokkaido. Shimizu, H., et al. [1988, p.35-44, jpn] **44-730**
- Avalanche formation and snow fences. Yoshida, Z., et al. [1988, p.45-56, jpn] **44-731**
- Modeling variable conditions in snow cover on mountain slopes. Bozhinskiĭ, A.N., et al. [1989, p.61-68, rus] **44-1573**
- Snow physics, avalanches, mudflows. Bolov, V.R., ed. [1989, 107p., rus] **44-1776**
- Calculating the zone of instability in snow layers. Bolov, V.R., et al. [1989, p.33-37, rus] **44-1781**
- Guidelines for weather, snowpack and avalanche observations. [1989, 49p., eng] **44-2082**
- Snow cover stability and avalanches. Fukue, M., et al. [1985, p.234-239, jpn] **44-2321**
- On the mechanics of snow slab release. Bader, H.P., et al. [1990, p.287-300, eng] **44-3300**
- Avalanche risk estimate - a model for complete simulation of snow cover evolution. Brun, E., et al. [1990, p.17-20, fre] **44-3414**
- Albedo decay of prairie snows. Baker, D.G., et al. [1990, p.179-187, eng] **44-3420**
- Fluctuation of Northern Hemisphere snow and ice cover and climate. Tsuchiya, I., [1990, p.89-94, eng] **44-3548**
- Eastern Snow Conference, 46th, 1989. [1989, 307p., eng] **44-3993**
- Variability of snowcover as a factor in forest decline. Auclair, A.N.D., [1989, p.228-231, eng] **44-4018**

Snow cover stratification

See *also*: Snow stratigraphy

Snow cover structure

- Implications of ice surface features for SAR backscatter signatures. Drinkwater, M.R., [1989, p.501-513, eng] **44-404**
- Spatial variability of snow-pack outflow at a site in Sierra Nevada, U.S.A. Kattelmann, R., [1989, p.124-128, eng] **44-560**
- Effect of boundary conditions and snow cover on snow creep. McClung, D.M., et al, [1989, p.175-179, eng] **44-569**
- Internal structure of powder-snow avalanches. Nishimura, K., et al, [1989, p.207-210, eng] **44-575**
- Meltwater percolation through snow cover, Pt.1. Hamada, K., et al, [1988, p.89-101, jpn] **44-734**
- Radar image processing of the internal structure of snowpack. Suzuki, M., et al, [1988, p.313-320, jpn] **44-1298**
- Forecasting avalanche formation from a snow slab. Girovka, N.N., [1989, p.80-87, rus] **44-1390**
- Mathematical model of heat and mass transfer in stratified snow. Grigorian, S.S., et al, [1989, p.69-72, rus] **44-1574**
- Strength of snow samples and questions in avalanche forecasting. Berri, B.L., [1989, p.72-81, rus] **44-1575**
- Strength of snow deposited by a snowstorm. Zhidkov, V.A., et al, [1989, p.81-95, rus] **44-1576**
- New classification of snow and ice on roads. Maeno, N., [1987, p.159-162, jpn] **44-2533**
- Radar image processing of snow stratigraphy. Suzuki, M., et al, [1987, p.173-178, jpn] **44-2536**
- Snow dielectric measurements. Denoth, A., [1989, p.233-243, eng] **44-2597**
- High speed snow search radar system. Yokomichi, H., et al, [1988, p.142-146, jpn] **44-2674**
- Imaging of objects under snow by ultrasound. Ikegami, M., et al, [1988, p.152-156, jpn] **44-2676**
- Snow covered ice in the Pacific ice massif. Kozlovskii, A.M., et al, [1989, p.84-87, rus] **44-2828**
- Mixture theory for a phase-changing snowpack. Morland, L.W., et al, [1990, p.271-285, eng] **44-3299**
- On the mechanics of snow slab release. Bader, H.P., et al, [1990, p.287-300, eng] **44-3300**
- Millimeter-wave backscatter characteristics of multilayered snow surfaces. Narayanan, R.M., et al, [1990, p.693-703, eng] **44-3695**
- Relationship between depth hoar and avalanche release. Ma, W.F., et al, [1990, p.37-40, eng] **44-3719**
- In situ* tensile tests of snow-pack layers. Jamieson, J.B., et al, [1990, p.102-106, eng] **44-3728**
- Snow cover spectral reflection properties in sunlight. Günther, T., [1990, p.50-54, ger] **44-3775**
- Eastern Snow Conference, 46th, 1989. [1989, 307p., eng] **44-3993**
- Influence of snowcover on the growth of antarctic fast ice. Crocker, G.B., [1989, p.156-164, eng] **44-4008**
- Review of microwave remote sensing of snow. Heacock, T., et al, [1989, p.287-290, eng] **44-4029**
- Snow cover thickness**
- See *also*: Snow depth
- Snow creep**
- Snow-creep pressure on masts. Larsen, J.O., et al, [1989, p.154-158, eng] **44-565**
- Effect of boundary conditions and snow cover on snow creep. McClung, D.M., et al, [1989, p.175-179, eng] **44-569**
- Snow creep pressures. McClung, D.M., et al, [1989, p.33-47, eng] **44-828**
- Snow crystal growth**
- Constitutive theory for snow as a continuous multiphase mixture. Adams, E.E., et al, [1989, p.553-572, eng] **44-274**
- Formation mechanisms of eighteen-branched snow crystals. Kikuchi, K., et al, [1987, p.109-119, eng] **44-1618**
- Snow crystals of low temperature types. Kikuchi, K., et al, [1988, p.243-257, eng] **44-1619**
- Effect of nucleation on snow crystals at low temperature. Sato, N., et al, [1988, p.259-280, eng] **44-1620**
- In situ* growth of snow crystals at low temperature. Sato, N., et al, [1989, p.333-354, eng] **44-1621**
- Measurement of the riming amount on snowflakes. Harimaya, T., et al, [1989, p.355-366, eng] **44-1622**
- Pattern formation in snow crystal growth. Yokoyama, E., et al, [1990, p.2038-2049, eng] **44-3623**
- Simulation of snowflake by cellular automata. Liu, S., et al, [1989, p.193-200, eng] **44-3952**
- Mass and number flux of ice crystals during Sierra snowfall. Ahmed, S.A., [1989, 86p., eng] **44-4416**
- Snow crystal nuclei**
- Bacteria at the heart of a good snowfall. Hampson, T., [1990, p.38, eng] **44-2788**
- Snow crystal structure**
- Relationship between new snow density and shape of snow crystals. Kajikawa, M., [1989, p.178-183, jpn] **44-1042**
- Formation mechanisms of eighteen-branched snow crystals. Kikuchi, K., et al, [1987, p.109-119, eng] **44-1618**
- Snow crystals of low temperature types. Kikuchi, K., et al, [1988, p.243-257, eng] **44-1619**

- Effect of nucleation on snow crystals at low temperature. Sato, N., et al, [1988, p.259-280, eng] **44-1620**
- In situ* growth of snow crystals at low temperature. Sato, N., et al, [1989, p.333-354, eng] **44-1621**
- Microphotographs of snow crystals by means of the special-effect filters. Kikuchi, K., [1988, p.170-173, jpn] **44-2679**
- Mass-dimensional relationships for ice particles and the influence of riming on snowfall rates. Mitchell, D.L., et al, [1990, p.153-163, eng] **44-3419**
- Pattern formation in snow crystal growth. Yokoyama, E., et al, [1990, p.2038-2049, eng] **44-3623**
- Simulation of snowflake by cellular automata. Liu, S., et al, [1989, p.193-200, eng] **44-3952**
- Application of aerosol physics to snow research. Hogan, A.W., [1989, p.201-207, eng] **44-4013**
- Optical effects in falling snow. Hutt, D.L., [1989, p.247-251, eng] **44-4022**
- Snow crystals**
- Automatic close-up system of snow particles. Fujiyoshi, Y., et al, [1988, p.231-235, jpn] **44-743**
- Wind tunnel study of melting behavior of snow flakes. Mitra, S.K., et al, [1990, p.584-591, eng] **44-3284**
- Observation of the falling motion of early snowflakes. Part II. On the variation of falling velocity. Kajikawa, M., [1989, p.731-738, eng] **44-3305**
- Snow particle size spectra in lake effect snows. Braham, R.R., Jr., [1990, p.200-207, eng] **44-3795**
- Does snow have ion chromatographic properties. Hewitt, A.D., et al, [1989, p.165-171, eng] **44-4009**
- Scavenging of aerosol particles by snow flakes. Mitra, S.K., et al, [1990, p.1247-1254, eng] **44-4478**
- Snow deformation**
- Interaction problems between a rigid tire and a supporting snowpack. Yong, R.N., et al, [1987, p.1-10, eng] **44-1226**
- Snow density**
- Snow-radar: an efficient tool for areal snow pack assessments. Killingtveit, A., et al, [1988, p.145-157, eng] **44-244**
- Seasonal snow distribution on Mt. Elbrus. Bazhev, A.B., et al, [1989, p.154-160, rus] **44-353**
- Excessive pressure in the pores of a snow cover. Samoliuk, V.I., [1989, p.169-172, rus] **44-356**
- Snow cover observations in Sapporo, 1986-87. Akitaya, E., et al, [1988, p.1-9, jpn] **44-456**
- Model of initial failure in slab-avalanche release. Gubler, H., et al, [1989, p.90-95, eng] **44-554**
- Effects of solar radiation on the formation of weak wet snow. Izumi, K., [1989, p.120-123, eng] **44-559**
- Contribution of viscous forces to avalanche dynamics. Nishimura, K., et al, [1989, p.202-206, eng] **44-574**
- Relationship between new snow density and shape of snow crystals. Kajikawa, M., [1989, p.178-183, jpn] **44-1042**
- Microwave measurements of ice and snow. Hallikainen, M.T., et al, [1988, p.69-83, eng] **44-1427**
- Snow physics, avalanches, mudflows. Bolov, V.R., ed, [1989, 107p., rus] **44-1776**
- Model for the turning snow ski. Renshaw, A.A., et al, [1989, p.721-736, eng] **44-1843**
- Snow cover estimates through calculations of ground temperature and frost depth. Cherniadin, V.P., [1985, p.31-37, rus] **44-2368**
- Modelling of microwave emission and scattering from snow and soil. Fung, A.K., et al, [1989, p.297-306, eng] **44-2603**
- Snow density as a criterion representing a mountain snow survey point. Gavrilov, G.G., [1989, p.143-146, rus] **44-2932**
- Thermal conductivity of snow and snow/metal mixtures. Murakami, S., et al, [1989, p.13-25, jpn] **44-3123**
- The snow-radar: a new device for areal snow depth measurements. Andersen, T., et al, [1987, p.269-284, eng] **44-3316**
- Friction loss through a uniform snow layer. Yen, Y.C., [1990, p.83-90, eng] **44-3542**
- Darcy permeability of fine-grained compact snow. Sommerfeld, R.A., et al, [1989, p.121-128, eng] **44-4005**
- Densification process within the near-surface layer of the antarctic ice sheet. Qin, D.H., [1990, p.10-19, eng] **44-4549**
- Snow depth**
- Recent trends and regional differentiation of snow variation in China. Li, P.J., [1989, p.3-9, eng] **44-166**
- Applied hydrology in the development of northern basins. [1988, 347p., eng] **44-232**
- Development and performance of a Canadian automatic snow depth sensor. Goodison, B.E., et al, [1988, p.137-144, eng] **44-243**
- Snow-radar: an efficient tool for areal snow pack assessments. Killingtveit, A., et al, [1988, p.145-157, eng] **44-244**
- Determination of snow water equivalents by using NOAA-satellite images. Kuittinen, R., [1988, p.159-168, eng] **44-245**
- Snow accumulation in the polar regions. Zhidkov, V.A., et al, [1989, p.118-124, rus] **44-345**
- Infrared snow cover detection by warming of sea ice/snow surface. Ikeda, M., [1989, p.552-560, eng] **44-409**

- Snow surveys in the coastal regions of the Japan Sea. Kawashima, K., et al, [1988, p.11-25, jpn] **44-457**
- Radiation measurements of snow season in 1988 in Sapporo. Kodama, Y., et al, [1988, p.27-33, jpn] **44-458**
- Interannual variations in snowpack in the Rocky Mountain region. Doesken, N.J., et al, [1989, p.21-30, eng] **44-500**
- Evaluation of an acoustic snow depth sensor. Bergman, J.A., [1989, p.126-129, eng] **44-513**
- Spatial variability of snow-pack outflow at a site in Sierra Nevada, U.S.A. Kattelmann, R., [1989, p.124-128, eng] **44-560**
- Snow-creep pressure on masts. Larsen, J.O., et al, [1989, p.154-158, eng] **44-565**
- Effect of boundary conditions and snow cover on snow creep. McClung, D.M., et al, [1989, p.175-179, eng] **44-569**
- Statistical characteristics of frozen soil in Jilin Province. Ni, C.Y., et al, [1989, p.34-43, chi] **44-648**
- Snow and ice: remote sensing applications in civil engineering. Östrem, G., [1985, p.151-163, eng] **44-1047**
- Wet deposition and snowpack monitoring. Hess, B.C., et al, [1988, 134p., eng] **44-1085**
- Snow survey of Great Britain 1988/89. [1989, 21p., eng] **44-1224**
- Bayes method of indicating an avalanche hazard. Ziuzin, I.U.L., [1989, p.185-187, rus] **44-1588**
- Evaluating avalanche hazards in the arctic mountain region. Zhidkov, V.A., et al, [1989, p.188-200, rus] **44-1589**
- Effects of forests on snow reserves and snow melting. Rubtsov, M.V., et al, [1986, p.8-13, eng] **44-1731**
- Snow physics, avalanches, mudflows. Bolov, V.R., ed, [1989, 107p., rus] **44-1776**
- Relationships between monthly totals of solid precipitation in high altitude zones. Samukashvili, R.D., [1989, p.10-19, rus] **44-1778**
- Charskaya Basin—geographical proving ground of the BAM zone. Naprasnikov, A.T., et al, [1987, 98p., rus] **44-1875**
- Magic chart for forecasting snow amounts. Chaston, P.R., [1989, p.20-22, eng] **44-2089**
- Snow cover, freezing and thawing of soil in pine forests. Korepanov, A.A., [1989, p.64-68, rus] **44-2352**
- Radar observation of snowfall. Yoshino, F., et al, [1986, p.55-60, jpn] **44-2446**
- Aerial photogrammetry of snow depth on roofs. Sakurai, S., et al, [1986, p.79-81, jpn] **44-2448**
- Measurement of snow depth on roofs by photogrammetry. Sakurai, S., et al, [1987, p.163-167, jpn] **44-2534**
- Estimating the size of snow banks along sections of earth canals. Kuts, S.L., [1988, p.42-44, rus] **44-2607**
- Development of snow survey by aerial photogrammetry. Shimura, K., et al, [1988, p.131-135, jpn] **44-2672**
- Photogrammetry of snow depth on roofs. Sakurai, S., et al, [1988, p.147-151, jpn] **44-2675**
- Meteorological data from Polish antarctic station "H. Arctowski" for 1987. Niemiec, J., et al, [1989, p.251-254, eng] **44-2739**
- Meteorological data from Polish antarctic station "H. Arctowski" for 1988. Baranski, A., et al, [1989, p.255-258, eng] **44-2740**
- Photogrammetry of snow depth on roofs (Pt 4). Sakurai, S., et al, [1989, p.557-560, jpn] **44-2915**
- Snow density as a criterion representing a mountain snow survey point. Gavrilov, G.G., [1989, p.143-146, rus] **44-2932**
- Soil freezing and thawing simulation with the SHAW model. Flerchinger, G.N., et al, [1990, p.77-86, eng] **44-2969**
- Influence of management practices on snowmelt runoff. Chanasvk, D.S., et al, [1990, p.120-124, eng] **44-2974**
- Snowmelt infiltration into completely frozen soils. Gray, D.M., et al, [1990, p.161-170, eng] **44-2979**
- Tillage and residue management systems affect winter soil temperatures. Cullum, R.F., et al, [1990, p.239-246, eng] **44-2990**
- Effect of extreme snowcover on feeding-site selection by woodland caribou. Brown, W.K., et al, [1990, p.161-168, eng] **44-3025**
- Vertical profiles of snow cover on level land in Sapporo, 1988-89. Akitaya, E., et al, [1989, p.1-6, jpn] **44-3041**
- Vertical profiles of snow cover on level land in Hokkaido, 1979-89. Kojima, K., et al, [1989, p.7-22, jpn] **44-3042**
- Radio echo soundings and geothermy at Mt. Melbourne. Delisle, G., et al, [1989, p.435-453, eng] **44-3052**
- Ice conditions at Russkaya Station in 1980-1981. Bulatov, L.V., [1989, p.115-119, rus] **44-3075**
- Estimations of the water equivalent and depth of snow cover using a beam sensor. Akitaya, E., [1989, p.111-115, jpn] **44-3130**
- The snow-radar: a new device for areal snow depth measurements. Andersen, T., et al, [1987, p.269-284, eng] **44-3316**
- Snow-radar: an efficient tool for areal snow pack assessments. Killingtveit, A., et al, [1988, p.259-271, eng] **44-3324**

Snow depth (cont.)

- Accuracy of linear robot snow depth gage. Muramatsu, I., et al. (1990, p.25-28, jpn) **44-3403**
- Snow disasters in the Tohoku district. Ito, T., (1989, p.52-56, jpn) **44-3439**
- Sea ice thickness versus impulse radar time-of-flight data. Kovacs, A., et al. (1990, p.91-98, eng) **44-3543**
- Runoff in rivers from rain and snow. Suzuki, T., et al. (1989, p.35-38, jpn) **44-3630**
- Satellite and geographic information system estimates of Colorado River Basin snowpack. Ferris, J.S., et al. (1989, p.1629-1635, eng) **44-3776**
- Global snow variations derived from SMMR: preliminary results. Chang, A.T.C., et al. (1990, p.213-217, eng) **44-3853**
- Method for measuring snow depth using fine-resolution radars. Lei, G., et al. (1989, p.151-158, eng) **44-3897**
- Tree morphology as an estimator of average snow depth. Wooldridge, G.L., et al. (1989, p.232-236, eng) **44-4019**
- Daily snow data in the United States. Robinson, D.A., (1989, p.120-130, eng) **44-4261**

Snow deterioration

- Avalanche forecasting using data on snow deterioration and movement. Berri, B.L., (1989, p.171-179, rus) **44-1586**

Snow disposal

- Entry of pollutants into the snow cover and soils of urban lawns. Lepneva, O.M., et al. (1988, p.16-20, eng) **44-621**
- Characterization of snowmelt from a dump site. Pinard, D., et al. (1989, p.211-215, fre) **44-1763**
- Size and shape of snow melting pit. Hoshino, T., et al. (1989, p.283-288, jpn) **44-2891**

See also: Snow removal

Snow distribution

See also: Snow cover distribution

Snow drifts

See also: Snowdrifts

Snow electrical properties

- Measurements of the electrode effect over flat, snow-covered ground. Knudsen, E., et al. (1989, p.521-527, eng) **44-1239**
- Charging mechanism of precipitation particles by ion capture. Asuma, Y., et al. (1987, p.973-989, eng) **44-1306**
- Electric potential and precipitation charge in the lower atmosphere. Asuna, Y., et al. (1987, p.991-998, eng) **44-1307**
- Self-consistency aspects of dielectric mixing theories. Sihvola, A.H., (1989, p.403-415, eng) **44-1324**
- Microwave measurements of ice and snow. Hallikainen, M.T., et al. (1988, p.69-83, eng) **44-1427**
- Snow effect on power line insulators. Imano, Y., et al. (1988, 49p., jpn) **44-1504**
- Theoretical assessment for microwave propagation in snowfall. Asari, E., (1985, p.383-388, jpn) **44-2332**
- Propagation characteristics of electromagnetic waves in snow pack. Watanabe, K., et al. (1985, p.389-393, jpn) **44-2333**
- Some applications of microwave remote sensing techniques for snow survey. Suzuki, M., (1985, p.394-397, jpn) **44-2334**
- Development of under snow radar. Sakamoto, Y., et al. (1985, p.407-412, jpn) **44-2336**
- Snow dielectric measurements. Denoth, A., (1989, p.233-243, eng) **44-2597**
- Voltage resistance of snow covered insulators on AC transmission lines. Takasu, K., et al. (1988, 65p., jpn) **44-3334**
- DC voltage resistance of snow covered insulators. Takasu, K., et al. (1988, 34p., jpn) **44-3335**

Snow erosion

- Arctic wind abrasion on boulders. Svensson, H., (1988, p.119-131, swe) **44-93**
- Process-based model of snow drifting. Pomeroy, J.W., (1989, p.237-240, eng) **44-581**

Snow evaporation

- Wind speed and snow evaporation in a stand of juvenile lodgepole pine in Alberta. Bernier, P.Y., (1990, p.309-314, eng) **44-3602**
- Differences between air and snow surface temperatures during evaporation. Bernier, P.Y., et al. (1989, p.117-120, eng) **44-4004**

Snow fences

- Saltation flow measurements relating to modeling of snowdrifting. Kind, R.J., et al. (1982, p.89-102, eng) **44-417**
- Evaporation from reservoir equipped with snow fence. Sturges, D.L., (1989, p.9-20, eng) **44-499**
- Six years of snow fence testing in France. Brugnot, G., (1989, p.16-19, eng) **44-540**
- Snow-collection mechanisms and the capacities of snow fences. Takeuchi, M., (1989, p.248-251, eng) **44-583**
- Avalanche formation and snow fences. Yoshida, Z., et al. (1988, p.45-56, jpn) **44-731**
- Destruction of snow retention structures by an avalanche. Kolesnikov, E.I., (1989, p.49-53, rus) **44-1571**
- Development of guard fence used in snowy area. Shimomura, C., et al. (1980, p.295-300, jpn) **44-2472**

Formation process of snow drifts around porous-plate-type snow fences. Kaneda, Y., et al. (1986, p.301-306, jpn) **44-2473**

Study on mechanical property of snow fence. Oshima, T., et al. (1987, p.417-421, jpn) **44-2555**

Precast concrete avalanche fences. Akiyama, H., (1988, p.202-207, jpn) **44-2685**

Numerical simulation of pressure on snow-glide supporting structures. Tagashira, S., et al. (1988, p.214-219, jpn) **44-2687**

Model study of drift accumulation of a snow fence. Cookson, P., (1987, 75p., eng) **44-2952**

Response of mountain big sagebrush to induced snow accumulation. Sturges, D.L., (1989, p.1035-1041, eng) **44-3169**

Plan for snow fences on multilane highways. Fujita, H., et al. (1987, p.91-96, jpn) **44-3514**

Snow pressure on fiberglass-reinforced-plastic fences at airport. Imabayashi, H., et al. (1987, p.1189-1194, jpn) **44-3519**

Snow fences and visibility on roads. Takabe, N., et al. (1989, p.189-194, jpn) **44-3524**

Anchors for avalanche fences on roads. Kanno, M., et al. (1989, p.91-96, jpn) **44-3566**

Snow gages

See also: Precipitation gages

Snow hardness

Effects of solar radiation on the formation of weak wet snow. Izumi, K., (1989, p.120-123, eng) **44-559**

Effect of extreme snowcover on feeding-site selection by woodland caribou. Brown, W.K., et al. (1990, p.161-168, eng) **44-3025**

JARE glaciological data collected in 1988-1989. Watanabe, O., et al. (1990, 77p., eng) **44-3448**

Snow heat flux

Simulation of soil frost depth and effect on runoff. Vehviläinen, B., et al. (1989, p.9-24, eng) **44-376**

Infrared snow cover detection by warming of sea ice/snow surface. Ikeda, M., (1989, p.552-560, eng) **44-409**

Snow cover and snowmelt runoff model in the forest zone. Motovilov, I.U.G., et al. (1989, p.17-26, eng) **44-1823**

Snow hedges

Construction and maintenance of snowbreak forest on Doou Expressway. Utsumi, H., et al. (1988, p.190-195, jpn) **44-2683**

Snow houses

On the optimum design of the snow-shelters. Sugimoto, H., et al. (1985, p.251-256, jpn) **44-2324**

Snow hydrology

Contribution to the modelling of both quality and quantity of seasonal snowcover. Babiaková, G., et al. (1988, p.117-129, eng) **44-241**

Western Snow Conference, 57th, 1989. (1989, 150p., eng) **44-497**

Snow cover and snowmelt runoff model in the forest zone. Motovilov, I.U.G., et al. (1989, p.17-26, eng) **44-1823**

Studies on the dynamics of the two-phase flow composed of snow and water. Kuriyama, H., et al. (1985, p.452-457, jpn) **44-2338**

Review of remote sensing capabilities in snow hydrology. Rangó, A., (1979, 10p., eng) **44-2950**

Hydrophysical studies of soils and snow cover. Kaluzhnyi, I.L., et al. (1989, p.205-220, rus) **44-3912**

Analysis of snow albedo as estimated by Landsat-5 Thematic Mapper. Bernier, M., et al. (1989, p.272-276, fre) **44-4026**

Modeling of meltwater infiltration in subfreezing snow. Illangasekare, T.H., et al. (1990, p.1001-1012, eng) **44-4129**

Snow ice

"Icehouse" project '88 in Funagata uses snow for cold storage. Hashimoto, Y., et al. (1988, p.536-540, jpn) **44-2723**

"Icehouse" project stores snow and ice. Kobiyama, M., (1988, p.550-555, jpn) **44-2726**

Snow ice interface

Exothermic model of percolation zone in a glacier. Cai, B.L., et al. (1989, p.312-314, eng) **44-289**

Electromagnetic wave theory. Kong, J.A., (1988, p.193-195, eng) **44-789**

Snow covered ice in the Pacific ice massif. Kozlovskii, A.M., et al. (1989, p.84-87, rus) **44-2828**

Ice thickness and brightness temperature for sea ice. Eppler, D., et al. (1990, p.229-232, eng) **44-3856**

Snow impurities

Formation of the chemical composition of snow in polluted spruce forests. Evlugin, Z.A., (1988, p.55-59, rus) **44-195**

Migration of soluble nickel and copper salts in snow cover. Ratkin, N.E., et al. (1988, p.60-64, rus) **44-196**

Changes in stream hydrochemistry during spring snowmelt in Norway. Ferrier, R.C., et al. (1989, p.321-337, eng) **44-267**

Determination of nitrophenols in rain and snow. Alber, M., et al. (1989, p.540-545, eng) **44-398**

Entry of pollutants into the snow cover and soils of urban lawns. Lepneva, O.M., et al. (1988, p.16-20, eng) **44-621**

Ph-210 in air and snow near nuclear research center. Parveen, N., et al. (1988, 16p., eng) **44-959**

Technogenic pollution of the snow cover on Svalbard.

Il'ina, E.A., (1989, p.17-21, eng) **44-1000**

Statistical analysis of pH in rain and snow. Watanabe, N., et al. (1988, p.389-397, eng) **44-1299**

Preliminary research on the acidity of snow cover on the Changbai mountains. Chen, D.L., et al. (1988, p.107-116, eng) **44-1450**

Characterization of snowmelt from a dump site. Pinard, D., et al. (1989, p.211-215, fre) **44-1763**

Snow chemistry at Showa Station. Kanamori, S., et al. (1989, p.79-87, eng) **44-1804**

Presence of heavy metals in urban snow. Sakai, H., et al. (1985, p.141-149, eng) **44-1931**

Black snow episodes in Austria. Malissa, H., et al. (1989, p.140-150, eng) **44-1948**

Graphitic carbon in snow. Srivastava, V., et al. (1989, p.151-160, eng) **44-1949**

Aerosol light absorption by soot in remote environments. Clarke, A.D., (1989, p.161-171, eng) **44-1950**

Seasonal variations in Greenland ice sheet pollutants. Davidson, C.I., et al. (1989, p.2483-2493, eng) **44-2261**

Soot in the atmosphere and snow surface of Antarctica. Warren, S.G., et al. (1990, p.1811-1816, eng) **44-2383**

Global monitoring at the United States baseline stations with emphasis on precipitation chemistry measurements. Artz, R.S., (1989, p.255-267, eng) **44-2384**

Atmospheric pollution as reflected by snowpack chemistry in the Canadian Arctic. Gorzeliska, K., (1989, p.2729-2737, eng) **44-2751**

Snow cover affected by a city. Prokacheva, V.G., et al. (1989, 176p. + append., rus) **44-2804**

Spatial variability of pollutants in snow cover in the USSR. Belikova, T.V., et al. (1989, p.45-55, rus) **44-2849**

Vertical distribution characteristics of sulphate deposition in snow cover. Vasilenko, V.N., et al. (1989, p.86-89, rus) **44-2850**

Pollution of snow on the ground. Tachibana, H., et al. (1989, p.313-315, jpn) **44-2895**

Pollution of the snow cover in the USSR. Vasilenko, V.N., et al. (1989, p.42-55, rus) **44-2937**

Monitoring atmospheric deposition in California's Sierra Nevada: a comparison of methods. McGurk, B.J., et al. (1989, p.71-79, eng) **44-3036**

Thermal conductivity of snow and snow/metal mixtures. Murakami, S., et al. (1989, p.13-25, eng) **44-3123**

Volatile fatty acids in snow drift. Ohta, K., et al. (1990, p.36-42, eng) **44-3545**

Mercury content of antarctic surface snow: initial results. Dick, A.L., et al. (1990, p.973-978, eng) **44-3585**

Spreading of chemicals on ice and snow. Kawamura, P., et al. (1986, 106p., eng) **44-3960**

Evaporation of volatile liquids. Kawamura, P., et al. (1985, 54p., eng) **44-3962**

Spring melting at an Alpine site: the influence of mineral dust. Delmas, V., (1989, p.36-44, fre) **44-3997**

Major ion chemistry of the pre-melt snowpack, Turkey Lake watershed, 1980-1988. Semkin, R.G., et al. (1989, p.277-281, eng) **44-4027**

Chemical migration in snowpack. Murphey, B.B., et al. (1989, p.282-286, eng) **44-4028**

On chemical composition of atmospheric precipitation in the Arctic. Smagin, V.M., et al. (1990, p.229-235, eng) **44-4094**

Snow line

Snow line estimates derived from aerial surveys. Allen, M.W., et al. (1989, p.145-148, eng) **44-518**

Snow cover of the Heihe River in the Qilian Mts. Chen, X.Z., (1988, p.49-54, chi) **44-635**

Permafrost distribution in the Qilian Mts. region. Liang, F.X., et al. (1988, p.120-127, chi) **44-643**

Climatic change in the Colorado Rocky Mountains. Leonard, E.M., (1989, p.245-255, eng) **44-1265**

Snow line and timber line, Qinghai-Xizang Plateau. Wu, X.H., (1989, p.113-124, chi) **44-2406**

Late Pleistocene glaciers and the climate of western Montana, U.S.A. Locke, W.W., III, (1990, p.1-13, eng) **44-2659**

Introduction to the glaciers in China. Shi, Y.F., ed. (1989, 231p. + photographs + maps, chi) **44-3881**

Glacier formation and snow line in China. Shi, Y.F., et al. (1989, p.11-28, chi) **44-3882**

Tree morphology as an estimator of average snow depth. Wooldridge, G.L., et al. (1989, p.232-236, eng) **44-4019**

Snow loads

Revised ground snow loads for the 1990 National Building Code of Canada. Newark, M.J., et al. (1989, p.267-278, eng) **44-112**

Supporting forces and stability of snow-slab avalanches: a parameter study. Lackinger, B., (1989, p.140-145, eng) **44-563**

Snow-creep pressure on masts. Larsen, J.O., et al. (1989, p.154-158, eng) **44-565**

Effect of boundary conditions and snow cover on snow creep. McClung, D.M., et al. (1989, p.175-179, eng) **44-569**

Internal structure of powder-snow avalanches. Nishimura, K., et al. (1989, p.207-210, eng) **44-575**

Snow creep pressures. McClung, D.M., et al. (1989, p.33-47, eng) **44-828**

- Estimation of wet snow accretion on structures. Makkonen, L., et al. [1989, p.83-88, eng] **44-831**
- Ice accretion and snow loading on overhead transmission lines. Larcombe, P.J., et al. [1989, 225p., eng] **44-1020**
- Test for aerodynamic streamlining and snow load distribution pattern. Korotich, A.V., et al. [1989, p.47-51, rus] **44-1055**
- Ultimate loads for corrugated-steel, barrel-type shell structures. Briassoulis, D., et al. [1987, 52p., eng] **44-1408**
- Improved data base and methodology for predicting snow loads. Final report. Pinkard, J.J., [1986, 179p., eng] **44-1443**
- Grain silos under snow loads. Khazra, A., [1990, 598p., eng] **44-1484**
- Study on snow load for structural design. Pt. 1. Sakurai, S., et al. [1985, p.83-88, jpn] **44-2297**
- Study on snow load for structural design. Pt. 2. Sakurai, S., et al. [1985, p.89-94, jpn] **44-2298**
- Mathematical models for ice accretion on conductors. Pt. 1. Larcombe, P.J., et al. [1988, p.217-236, eng] **44-2394**
- On the stress measurement of the snow-shelter. Satoh, M., et al. [1986, p.313-318, jpn] **44-2475**
- Roof collapse under snowdrift loading and snowdrift design criteria. Zaller, R.M., [1988, p.80-98, eng] **44-2512**
- Roof collapse under snowdrift loading and snowdrift design criteria - discussion. O'Rourke, M.J., [1989, p.266-268, eng] **44-2513**
- Outdoor scale model tests of snow accumulation on bridges. Kaneda, Y., et al. [1987, p.439-444, jpn] **44-2559**
- Study for the design of agricultural concrete canal in cold region. Komatsu, J., et al. [1987, p.445-448, jpn] **44-2560**
- Risk probability map of wet snow accretion on power line. Ishihara, K., et al. [1989, p.87-94, jpn] **44-2861**
- Fundamental study on snow load for structural design (Parts 1-3). Sakurai, S., [1985, p.193-231, jpn] **44-3174**
- Fundamental study on snow load for structural design (Part 4). Sakurai, S., [1986, p.109-111, jpn] **44-3176**
- Roof snowdrifts due to blizzards. O'Rourke, M.J., [1990, p.641-658, eng] **44-3197**
- Sticky snow: stopping the damage. Admirat, P., et al. [1990, p.96-99, fre] **44-3412**
- Snow pressure on fiberglass-reinforced-plastic fences at airport. Imabayashi, H., et al. [1987, p.1189-1194, jpn] **44-3519**
- Anchors for avalanche fences on roads. Kanno, M., et al. [1989, p.91-96, jpn] **44-3566**
- On the control of conductor rotation from snow loading by counterweights. Skelton, P.L.L., et al. [1989, p.2829-2838, eng] **44-3601**
- Snow manufacturing**
- Bacteria at the heart of a good snowfall. Hampson, T., [1990, p.38, eng] **44-2788**
- See *falsoy*: Artificial snow
- Snow mechanics**
- Six years of snow-fence testing in France. Brugnot, G., [1989, p.16-19, eng] **44-540**
- Model of initial failure in slab-avalanche release. Gubler, H., et al. [1989, p.90-95, eng] **44-554**
- Contribution of viscous forces to avalanche dynamics. Nishimura, K., et al. [1989, p.202-206, eng] **44-574**
- Mathematical model for instability in snow gliding motion. Nohguchi, Y., [1989, p.211-214, eng] **44-576**
- Process-based model of snow drifting. Pomeroy, J.W., [1989, p.237-240, eng] **44-581**
- Snow cover cracking on mountain slope. Akitaya, E., et al. [1988, p.25-33, jpn] **44-729**
- Avalanche formation in the Nishio Pass, Hokkaido. Shimizu, H., et al. [1988, p.35-44, jpn] **44-730**
- Avalanche formation and snow fences. Yoshida, Z., et al. [1988, p.45-56, jpn] **44-731**
- Interaction problems between a rigid tire and a supporting snowpack. Yong, R.N., et al. [1987, p.1-10, eng] **44-1226**
- Snow transfer in a storm and diagnosing an avalanche hazard. Chernous, P.A., [1989, p.101-111, rus] **44-1578**
- Geomorphic processes on scree slopes during winter in Gaspésie, Quebec. Héty, B., et al. [1989, p.389-406, fre] **44-2065**
- Sticky snow: stopping the damage. Admirat, P., et al. [1990, p.96-99, fre] **44-3412**
- Snow melting**
- Exothermic model of percolation zone in a glacier. Cai, B.L., et al. [1989, p.312-314, eng] **44-289**
- Water conservation and protection functions of forests of Sakhalin. Klintsov, A.P., [1986, p.51-55, eng] **44-317**
- Evaporation from reservoir equipped with snow fence. Sturges, D.L., [1989, p.9-20, eng] **44-499**
- Snow-creek pressure on masts. Larsen, J.O., et al. [1989, p.154-158, eng] **44-565**
- Snowmelt mechanism of snow cover in a warm region. Watanabe, K., et al. [1987, p.105-120, jpn] **44-1288**
- Melting of snow by an aqueous solution. Sugawara, M., et al. [1986, p.161-165, jpn] **44-1345**
- Effects of forests on snow reserves and snow melting. Rubtsov, M.V., et al. [1986, p.8-13, eng] **44-1731**
- Snow cover and snowmelt runoff model in the forest zone. Motovilov, I.U.G., et al. [1989, p.17-26, eng] **44-1823**
- Potential effectiveness of thermal melioration of frozen soil. Romanov, P.G., et al. [1988, p.104-113, rus] **44-1968**
- Summer climate recorded in a high-arctic ice core. Koerner, R.M., et al. [1990, p.630-631, eng] **44-2103**
- Snow melting and deicing system using heat pipes. Takaoka, M., et al. [1985, p.314-319, jpn] **44-2329**
- Controlled snow melting as water supply. Takahara, H., et al. [1985, p.440-445, jpn] **44-2337**
- Snow conveyance and melting gutters. Okuma, T., et al. [1989, p.239-251, jpn] **44-2353**
- Retardation method of snow melt for application to cold storage. Fukuda, M., et al. [1986, p.429-433, jpn] **44-2484**
- Field experiment of snow-melting for roads by using groundwater. Urakami, K., et al. [1986, p.573-578, jpn] **44-2501**
- Snow melting experiment using sewage treatment water. Ishikura, A., et al. [1986, p.579-584, jpn] **44-2502**
- Snow melting system for the roof using heat pipes. Motoi, T., et al. [1986, p.585-590, jpn] **44-2503**
- Road snow melting by heat pumps and heat pipes without sprinklers. Sato, K., [1986, p.591-600, jpn] **44-2504**
- Snow melting system using a spring water in underground space. Ihata, S., et al. [1986, p.606-610, jpn] **44-2506**
- Tunnels formed below snow. Uematsu, T., [1986, p.611-615, jpn] **44-2507**
- Snow melting accelerant with fertility from sewage sludge compost. Otani, M., et al. [1986, p.616-620, jpn] **44-2508**
- Proceedings. [1987, 503p., jpn] **44-2526**
- Snow melting by ground water without sprinkling. Abiko, H., et al. [1987, p.236-241, jpn] **44-2538**
- Study of flood control-type snow removal gutters. Takasaka, K., et al. [1987, p.242-247, jpn] **44-2539**
- Control system of snow removing gutters. Saito, M., et al. [1987, p.248-253, jpn] **44-2540**
- Proceedings. [1988, 676p., jpn] **44-2666**
- Expert system to decide anti-snow measures for power lines. Matsunami, S., et al. [1988, p.226-231, jpn] **44-2689**
- Electric snow melting device. Takahashi, H., et al. [1988, p.360-365, jpn] **44-2704**
- View of power control for road heating system. Sugawara, N., et al. [1988, p.366-371, jpn] **44-2705**
- Road snow melting by gas in Sapporo. Shibuya, K., et al. [1988, p.399-404, jpn] **44-2710**
- Development of snow-circulating-conveyance-gutter systems. Tanaka, M., [1988, p.412-418, jpn] **44-2712**
- Snow gutter booster and heat circulation for snow melting cistern. Taniguchi, M., et al. [1988, p.419-424, jpn] **44-2713**
- Glass fiber reinforced plastic snow drain cover. Gocho, M., et al. [1988, p.425-430, jpn] **44-2714**
- "Icehouse" project controls snow melting for farm water. Kawamoto, S., et al. [1988, p.541-545, jpn] **44-2724**
- Snow melters with submersible burner. Koyama, F., [1988, p.567-572, jpn] **44-2729**
- Study for improving the quality of snow drain channel. Sawada, K., et al. [1988, p.627-633, jpn] **44-2736**
- Proceedings. [1989, 645p., jpn] **44-2859**
- Study on snow melting methods in Hokkaido. Ninagawa, K., et al. [1989, p.177-182, jpn] **44-2876**
- Report of the low cost road-heating system by city gas. Hasegawa, Y., et al. [1989, p.183-188, jpn] **44-2877**
- Local road heating for the slope intersection. Suzuki, Y., et al. [1989, p.189-194, jpn] **44-2878**
- Submersible burner for snow melting. Koyama, F., [1989, p.277-282, jpn] **44-2890**
- Size and shape of snow melting pit. Hoshino, T., et al. [1989, p.283-288, jpn] **44-2891**
- Electric snow melter (Pt.2). Takahashi, H., et al. [1989, p.535-540, jpn] **44-2911**
- Two component mixing during acid anion leaching during rain-on-snow events. Jones, H.G., et al. [1989, p.239-250, eng] **44-3038**
- Infiltration of water into soil during melting of snow. Gusev, E.M., [1990, p.108-120, eng] **44-3247**
- Water sprinkling system for snow melting on railroad tracks. Sawase, K., [1989, p.136-142, eng] **44-3303**
- Relation between landslides and snow. Shuzui, H., et al. [1988, p.13-18, jpn] **44-3436**
- Snow melting agents in Hokkaido. Ninagawa, K., et al. [1989, p.103-108, jpn] **44-3568**
- Comparison of melt energy computations and ablatometer measurements on melting ice and snow. Munro, D.S., [1990, p.153-162, eng] **44-4048**
- See *falsoy*: Snowmelt
- Snow metal friction**
- See *falsoy*: Metal snow friction
- Snow metamorphism**
- See *falsoy*: Metamorphism (snow)
- Snow morphology**
- Sliding, but on which snow? La Feuille, J., [1990, p.9-12, fre] **44-3201**
- Snow optics**
- Remote sensing of snow in visible and near-infrared wavelengths. Dozier, J., [1989, p.527-547, eng] **44-50**
- Spectral bidirectional reflectance of snow. Dozier, J., et al. [1988, p.87-92, eng] **44-419**
- Motion detection systems under winter conditions. Peck, L., [1989, 8p., eng] **44-608**
- Discrimination between snow and clouds using remote sensing. Chen, X.Z., et al. [1988, p.94-99, chi] **44-640**
- Multiple reflections across a linear discontinuity in surface albedo. Barker, H.W., et al. [1989, p.203-214, eng] **44-759**
- Spectral signature of alpine snow cover from the Landsat thematic mapper. Dozier, J., [1989, p.9-22, eng] **44-1530**
- Remote sensing of earth terrain. Semimannual report. Mar.-Aug. 1987. Kong, J.A., [1987, 13p., eng] **44-1631**
- Optical method of determining snow moisture. Zalikhonov, M.Ch., et al. [1989, p.29-33, rus] **44-1780**
- Graphitic carbon in snow. Srivastava, V., et al. [1989, p.151-160, eng] **44-1949**
- Estimation of properties of alpine snow from Landsat Thematic Mapper. Dozier, J., [1989, p.207-215, eng] **44-2596**
- Snow cover spectral reflection properties in sunlight. Gunther, T., [1990, p.50-54, ger] **44-3775**
- Eastern Snow Conference, 46th, 1989. [1989, 307p., eng] **44-3993**
- Application of aerosol physics to snow research. Hogan, A.W., [1989, p.201-207, eng] **44-4013**
- Optical effects in falling snow. Hutt, D.L., [1989, p.247-251, eng] **44-4022**
- Snow pellets**
- Numerical simulation of microphysical processes in cumulonimbus Pt.2. Hu, Z.J., et al. [1989, p.185-199, eng] **44-528**
- Observation of snow particles in Kinki District, Japan. Sato, N., [1989, p.161-169, jpn] **44-1040**
- General equation for the terminal fall speed of solid hydrometeors. Böhm, H.P., [1989, p.2419-2427, eng] **44-1227**
- Multiparameter radar modeling and observations of melting ice. Vivekanandan, J., et al. [1990, p.549-564, eng] **44-3282**
- Influence of large ice particles on radiative transfer through clouds. Smith, E.A., et al. [1989, p.739-755, eng] **44-3306**
- Redistribution of aerosol particles through scavenging by ice particles. Alheit, R.R., et al. [1990, p.870-887, eng] **44-4138**
- Snow permeability**
- Friction loss through a uniform snow layer. Yen, Y.C., [1990, p.83-90, eng] **44-3542**
- Darcy permeability of fine-grained compact snow. Sommerfeld, P.A., et al. [1989, p.121-128, eng] **44-4005**
- Modeling of meltwater infiltration in subfreezing snow. Ilangasekare, T.H., et al. [1990, p.1001-1012, eng] **44-4129**
- Snow physics**
- Snow accumulation determined by glaciochemistry. Karakoram, Pakistan. Wake, C.P., [1989, p.279-284, eng] **44-590**
- Characteristics of snow along the Japan Sea coast. Kawashima, K., et al. [1988, p.15-24, jpn] **44-728**
- Ice and snow geophysics in area II. Leppäranta, M., et al. [1988, p.41-68, eng] **44-1426**
- Mathematical model of heat and mass transfer in stratified snow. Grigorian, S.S., et al. [1989, p.69-72, rus] **44-1574**
- Snow cover model for avalanche forecasting. Brun, E., et al. [1989, p.333-342, eng] **44-1894**
- Sorption concentration of mercury (II) on silica gel. Simonova, L.N., et al. [1987, p.1047-1050, rus] **44-2054**
- Gas survey in the snow of Kuznetsk basin. Vyshemirskii, V.S., et al. [1989, p.182-183, rus] **44-2605**
- Mixture theory for a phase-changing snowpack. Morland, L.W., et al. [1990, p.271-285, eng] **44-3299**
- Snow pillows**
- High sensitivity snow weight measuring system. Nishikawa, Y., et al. [1986, p.103-106, jpn] **44-2452**
- Snow fall strength measurement using snow pressure pillow system. Sayama, S., et al. [1989, p.561-563, jpn] **44-2916**
- Snow plastics friction**
- See *falsoy*: Plastics snow friction
- Snow recrystallization**
- See *falsoy*: Metamorphism (snow)
- Snow removal**
- Rail borne snow removal vehicle. Torres, W.R., [1988, 31p., eng] **44-670**
- Prospects for winter maintenance machines and equipment. Tampo, T., [1988, p.20-24, fin] **44-751**
- Snow budgets stable, PR efforts up, survey shows. Kuennen, T., [1989, p.40-46, 58, eng] **44-767**
- SHRP snow, ice contracts may aid snowfighters. Minsk, D., [1989, p.47-48, eng] **44-768**

Snow removal (cont.)

- Snowfighting plan a must for safe, successful winter. Patyk, S., comp. [1989, p.56-57, eng] **44-770**
- Spring demonstrations of snow removal trucks. Bilotta, A., [1989, p.14-27, ita] **44-909**
- Snag-free snow blowing. Fischer, J., [1989, p.25-27, eng] **44-1094**
- Diversification of snow removal systems. Toma, S., [1988, p.47-61, jpn] **44-1289**
- Advances in winter maintenance techniques. Farquhar, B., [1984, p.1631, eng] **44-2062**
- Proceedings. [1985, 577p., jpn] **44-2296**
- Cost-benefit analysis of snow removal. Matsuda, M., [1985, p.259-263, jpn] **44-2325**
- Plans for snow drainage ditches. Sawada, K., [1985, p.264-269, jpn] **44-2326**
- Snow conveyance and melting gutters. Okuma, T., et al., [1989, p.239-251, jpn] **44-2353**
- Snow removal and air conditioning system for Nagaoka City. Umemura, T., et al., [1989, p.263-274, jpn] **44-2355**
- Proceedings. [1986, 666p., jpn] **44-2445**
- Snow melting system using a spring water in underground space. Ithata, S., et al., [1986, p.606-610, jpn] **44-2506**
- Snow compaction treatment. Tamura, T., et al., [1986, p.627-632, jpn] **44-2509**
- Performance of the agitator in hydraulic snow transportation system. Kobayashi, T., et al., [1986, p.633-638, jpn] **44-2510**
- Effect of studded tires on the costs of snow removal. Satoh, K., et al., [1986, p.639-646, jpn] **44-2511**
- Proceedings. [1987, 503p., jpn] **44-2526**
- Snow melting by ground water without sprinkling. Abiko, H., et al., [1987, p.236-241, jpn] **44-2538**
- Study of flood control-type snow removal gutters. Takasaka, K., et al., [1987, p.242-247, jpn] **44-2539**
- Control system of snow removing gutters. Saito, M., et al., [1987, p.248-253, jpn] **44-2540**
- Snow removal gutters using sea water. Sawada, K., et al., [1987, p.393-398, jpn] **44-2552**
- Proceedings. [1988, 676p., jpn] **44-2666**
- System developments of snow removal in Sapporo. Terashima, S., et al., [1988, p.174-178, jpn] **44-2680**
- Natural snow removal from concrete elevated railroad bridges. Tamaki, S., [1988, p.354-359, jpn] **44-2703**
- Electric snow melting device. Takahashi, H., et al., [1988, p.360-365, jpn] **44-2704**
- View of power control for road heating system. Sugawara, N., et al., [1988, p.366-371, jpn] **44-2705**
- Development of snow-circulating-conveyance-gutter systems. Tanaka, M., [1988, p.412-418, jpn] **44-2712**
- Snow gutter booster and heat circulation for snow melting cistern. Taniguchi, M., et al., [1988, p.419-424, jpn] **44-2713**
- Glass fiber reinforced plastic snow drain cover. Gocho, M., et al., [1988, p.425-430, jpn] **44-2714**
- Snow melters with submersible burner. Koyama, F., [1988, p.567-572, jpn] **44-2729**
- Asahikawa winter plan. Matsushita, K., et al., [1988, p.604-609, jpn] **44-2733**
- Snow gutters for urban streets. Suzuki, H., et al., [1988, p.610-614, jpn] **44-2734**
- Outline of snow gutters in Takikawa City. Goto, N., [1988, p.615-620, jpn] **44-2735**
- Study for improving the quality of snow drain channel. Sawada, K., et al., [1988, p.627-633, jpn] **44-2736**
- Snow removal from elevated roads by air jets. Tanaka, K., et al., [1988, p.640-645, jpn] **44-2737**
- Fifty million dollars of snow removal. Lazure, G.M., [1990, p.10-28, eng] **44-2756**
- Five-stage snow removal plan. Hoover, T.R., [1989, p.12-13, eng] **44-2757**
- Proceedings. [1989, 645p., jpn] **44-2859**
- Pneumatic snow removal. Takeuchi, M., et al., [1989, p.157-161, jpn] **44-2872**
- Snow probability, snow depth and snow removal in Akita City. Ito, T., et al., [1989, p.162-166, jpn] **44-2873**
- Detection method of snow flow removed by rotary snow remover. Ikegami, M., et al., [1989, p.167-170, jpn] **44-2874**
- Friction in interaction between snow and snow removal machinery. He, T.J., et al., [1989, p.171-176, jpn] **44-2875**
- Submersible burner for snow melting. Koyama, F., [1989, p.277-282, jpn] **44-2890**
- System to detect the water level in snow gutters. Hasegawa, O., et al., [1989, p.289-294, jpn] **44-2892**
- Study of titanium lining method for snow gutter. Ito, H., et al., [1989, p.295-300, jpn] **44-2893**
- Fiber reinforced plastic cover for snow gutter. Sawada, K., et al., [1989, p.301-306, jpn] **44-2894**
- Electric snow melter (Pt.2). Takahashi, H., et al., [1989, p.535-540, jpn] **44-2911**
- Aircraft operation in the Arctic. Meanor, R.W., [1989, p.56-84, eng] **44-3138**
- Snow removal by snow block. Toma, S., [1985, p.130-156, jpn] **44-3172**
- Blowing of snow by passing railroad cars. Imai, T., et al., [1989, p.215-219, eng] **44-3302**
- Water sprinkling system for snow melting on railroad tracks. Sawase, K., [1989, p.136-142, eng] **44-3303**
- Equipment and systems that help control snow. [1989, p.41-42,45, eng] **44-3368**
- Snow-winged tips. [1921, p.44, eng] **44-3369**
- Tests on rotary snow removal machinery. Nakayama, K., et al., [1987, p.1251-1268, jpn] **44-3520**
- Tests on snow removal truck. Nakajima, J., et al., [1987, p.1283-1288, jpn] **44-3521**
- Tests on rotary snow removal machinery. Final report. [1989, p.167-186, jpn] **44-3523**
- Snow removal trucks. Nakajima, J., et al., [1989, p.195-200, jpn] **44-3525**
- Performance tests on 100-PS-model small-scale snowplows. Sasaki, C., et al., [1989, p.201-206, jpn] **44-3526**
- Snow removal along protected urban rivers. Hamada, T., et al., [1989, p.271-276, jpn] **44-3590**
- Plane truth about snow removal. [1990, p.52-56, eng] **44-3782**
- Comprehensive technology of snow removal from city streets. Karaban, G.L., et al., [1990, 156p., rus] **44-4119**
- Winter in the Haut-Doubs region of France. Vallet, R., [1990, p.25-29, fre] **44-4326**
- Snow retention**
- Hydrological model input accuracy in determination of water yield. Stednick, J.D., [1989, p.36-44, eng] **44-502**
- Snow-collection mechanisms and the capacities of snow fences. Takeuchi, M., [1989, p.248-251, eng] **44-583**
- Destruction of snow retention structures by an avalanche. Kolesnikov, E.I., [1989, p.49-53, rus] **44-1571**
- Effects of forests on snow reserves and snow melting. Rubtsov, M.V., et al., [1986, p.8-13, eng] **44-1731**
- "Icehouse" project controls snow melting for farm water. Kawamoto, S., et al., [1988, p.541-545, jpn] **44-2724**
- Snow storage in thermally insulated mounds. Tsushima, K., et al., [1988, p.556-561, jpn] **44-2727**
- Proceedings. [1989, 645p., jpn] **44-2859**
- Storage of snow in snow mounds (Pt.2). Tsushima, K., et al., [1989, p.242-247, jpn] **44-2885**
- Snow roads**
- Improving snow roads and airstrips in Antarctica. Lee, S.M., et al., [1989, 18p., eng] **44-1**
- Binders for snow roads and runways in Antarctica. Barber, M.J., et al., [1989, p.84-86, eng] **44-215**
- Snow rubber friction**
- See *also*: Rubber snow friction
- Snow samplers**
- Methods to measure and collect snowfall. Berg, N.H., et al., [1989, 137p., eng] **44-880**
- Snow collector for acid precipitation studies. Hall, D.J., et al., [1988, 69p., eng] **44-1051**
- Snowpack monitoring manual. Chaloud, D.J., et al., [1987, 139p., eng] **44-1273**
- Snowfall Chemistry Collector Intercomparison Test (SCCIT). Sisterson, D.L., et al., [1989, p.477-488, eng] **44-2750**
- Monitoring atmospheric deposition in California's Sierra Nevada: a comparison of methods. McGurk, B.J., et al., [1989, p.71-79, eng] **44-3036**
- Snow slides**
- Measurements of friction coefficients of snow blocks. Casassa, G., et al., [1989, p.40-44, eng] **44-546**
- Comparison of three models of avalanche dynamics. Gubler, H., [1989, p.82-89, eng] **44-553**
- Model of initial failure in slab-avalanche release. Gubler, H., et al., [1989, p.90-95, eng] **44-554**
- Studies of granular avalanche flow. Hutter, K., et al., [1989, p.109-116, eng] **44-557**
- Supporting forces and stability of snow-slab avalanches: a parameter study. Lackinger, B., [1989, p.140-145, eng] **44-563**
- Mathematical model for instability in snow gliding motion. Nohguchi, Y., [1989, p.211-214, eng] **44-576**
- Forecasting avalanche formation from a snow slab. Girovka, N.N., [1989, p.80-87, rus] **44-1390**
- Improved data base and methodology for predicting snow loads. Final report. Pinkard, J.J., [1986, 179p., eng] **44-1443**
- Conditions of snow sliding on roofs and its flight distance. Endo, Y., et al., [1988, p.220-225, jpn] **44-2688**
- On the mechanics of snow slab release. Bader, H.P., et al., [1990, p.287-300, eng] **44-3300**
- Snow stabilization**
- See *also*: Snow cover stability
- Snow stratigraphy**
- Snow accumulation determined by glaciochemistry. Karakoram, Pakistan. Wake, C.P., [1989, p.279-284, eng] **44-590**
- Mathematical model of heat and mass transfer in stratified snow. Grigorian, S.S., et al., [1989, p.69-72, rus] **44-1574**
- Evaluating avalanche hazards in the arctic mountain region. Zhidkov, V.A., et al., [1989, p.188-200, rus] **44-1589**
- Automated measuring system designed for determining the snow stratigraphy. Motoi, K., et al., [1985, p.401-406, jpn] **44-2335**
- Radar image processing of snow stratigraphy. Suzuki, M., et al., [1987, p.173-178, jpn] **44-2536**
- Snow strength**
- Supporting forces and stability of snow-slab avalanches: a parameter study. Lackinger, B., [1989, p.140-145, eng] **44-563**
- Avalanche formation and snow fences. Yoshida, Z., et al., [1988, p.45-56, jpn] **44-731**
- Forecasting avalanche formation from a snow slab. Girovka, N.N., [1989, p.80-87, rus] **44-1390**
- Strength of snow samples and questions in avalanche forecasting. Berri, B.L., [1989, p.72-81, rus] **44-1575**
- Strength of snow deposited by a snowstorm. Zhidkov, V.A., et al., [1989, p.81-95, rus] **44-1576**
- On the mechanics of snow slab release. Bader, H.P., et al., [1990, p.287-300, eng] **44-3300**
- In-situ tensile tests of snow-pack layers. Jamieson, J.B., et al., [1990, p.102-106, eng] **44-3728**
- Resistance of snow to motion of an icebreaker. Gramuzov, E.M., [1989, 9p., eng] **44-3734**
- Explosive waves in snow. Liakhov, G.M., et al., [1990, p.493-499, eng] **44-4262**
- Snow structure**
- See *also*: Snow cover structure
- Snow surface**
- Satellite data. Kemppainen, H., et al., [1988, p.153-159, eng] **44-1433**
- JARE-30 field work in Sør Rondane Mountains, 1988-1989. Moriawaki, K., et al., [1989, p.293-319, jpn] **44-1472**
- Spectral signature of alpine snow cover from the Landsat thematic mapper. Dozier, J., [1989, p.9-22, eng] **44-1530**
- Evaluating avalanche hazards in the arctic mountain region. Zhidkov, V.A., et al., [1989, p.188-200, rus] **44-1589**
- Model for the turning snow ski. Renshaw, A.A., et al., [1989, p.721-736, eng] **44-1843**
- Estimation of properties of alpine snow from Landsat Thematic Mapper. Dozier, J., [1989, p.207-215, eng] **44-2596**
- Atmospheric pollution as reflected by snowpack chemistry in the Canadian Arctic. Liska, K., [1989, p.2729-2737, eng] **44-2751**
- Sliding, but on which snow? La Feuille, J., [1990, p.9-12, fre] **44-3201**
- Comparison of *in situ* and satellite-derived reflectances of Forbindels Glacier, Greenland. Hall, D.K., et al., [1990, p.493-504, eng] **44-3350**
- Mercury content of antarctic surface snow: initial results. Dick, A.L., et al., [1990, p.973-978, eng] **44-3585**
- Millimeter-wave backscatter characteristics of multilayered snow surfaces. Narayanan, R.M., et al., [1990, p.693-703, eng] **44-3695**
- Eastern Snow Conference, 46th, 1989. [1989, 307p., eng] **44-3993**
- Analysis of snow albedo as estimated by Landsat-5 Thematic Mapper. Bernier, M., et al., [1989, p.272-276, fre] **44-4026**
- See *also*: Glacier surfaces
- Snow surface temperature**
- Land-surface temperature measurement from space: physical principles and inverse modeling. Wan, Z.M., et al., [1989, p.268-278, eng] **44-45**
- Prediction model for snowmelt using a heat balance method. Kondo, J., et al., [1990, p.375-384, eng] **44-3874**
- Snow-surface temperature analysis. Bates, R.E., et al., [1989, p.109-116, eng] **44-4003**
- Differences between air and snow surface temperatures during evaporation. Bernier, P.Y., et al., [1989, p.117-120, eng] **44-4004**
- Snow survey tools**
- Some applications of microwave remote sensing techniques for snow survey. Suzuki, M., [1985, p.394-397, jpn] **44-2334**
- Automated measuring system designed for determining the snow stratigraphy. Motoi, K., et al., [1985, p.401-406, jpn] **44-2335**
- Development of under snow radar. Sakamoto, Y., et al., [1985, p.407-412, jpn] **44-2336**
- Snow gages of the Govt Industrial Development Lab. Hokkaido. Sayama, S., et al., [1988, p.157-163, jpn] **44-2677**
- Snow surveys**
- Snow cover and glacier variations. Colbeck, S.C., ed., [1989, 111p., eng] **44-165**
- Groundwater regime and runoff in forests and swamps in Siberia. Konstantinov, V.D., [1986, p.10-16, eng] **44-316**
- Soviet literature on glaciology for 1986. Kothakov, V.M., et al., [1989, p.173-208, rus] **44-357**
- Ninth All-Union Glaciological Symposium in Tbilisi. Ushakov, A.I., [1989, p.209-224, rus] **44-358**
- Snow cover observations in Sapporo, 1986-87. Akitaya, E., et al., [1988, p.1-9, jpn] **44-456**
- Snow surveys in the coastal regions of the Japan Sea. Kawashima, K., et al., [1988, p.11-25, jpn] **44-457**
- Western Snow Conference, 57th, 1989. [1989, 150p., eng] **44-497**
- Interannual variations in snowpack in the Rocky Mountain region. Doesken, N.J., et al., [1989, p.21-30, eng] **44-500**

- Snow line estimates derived from aerial surveys. Allen, M.W., et al. [1989, p.145-148, eng] **44-518**
- Symposium on Snow and Glacier Research. 1989. 303p., eng] **44-536**
- Snow survey of Qilian Mts. by remote sensing. Liu, Z.K., et al. [1988, p.29-39, chi] **44-633**
- Snow survey of Great Britain 1988/89. [1989, 21p., eng] **44-1224**
- Remote sensing of snow reflectance and snow cover characteristics. Dozier, J., et al. [1987, 93p., eng] **44-1245**
- Ice and snow surveys from an ice station. Håkansson, B., et al. [1988, p.85-101, eng] **44-1428**
- Cold regions weather data systems. Bates, R.E., et al. [1989, p.139-145, eng] **44-1652**
- Regional characteristics of the snow cover in Hokkaido. Akitaya, E., et al. [1985, p.213-218, jpn] **44-2318**
- Development of snow survey by aerial photogrammetry. Shimura, K., et al. [1988, p.131-135, jpn] **44-2672**
- High speed snow search radar system. Yokomichi, H., et al. [1988, p.142-146, jpn] **44-2674**
- Snow density as a criterion representing a mountain snow survey point. Gavrilov, G.G., [1989, p.143-146, rus] **44-2932**
- Vertical profiles of snow cover on level land in Sapporo, 1988-89. Akitaya, E., et al. [1989, p.1-6, jpn] **44-3041**
- Vertical profiles of snow cover on level land in Hokkaido, 1979-89. Kojima, K., et al. [1989, p.7-22, jpn] **44-3042**
- Snowmelt from perennial snowfield in Daisetsu Mountains, 1989. Yamada, T., et al. [1989, p.23-63, jpn] **44-3043**
- Perennial snowfield in Daisetsu Mountains, 1989. Takahashi, S., et al. [1989, p.65-70, jpn] **44-3044**
- Using aerial gamma surveys of snow cover to forecast spring flood runoff. Vershinina, L.K., [1989, p.82-96, rus] **44-3910**
- Comparison between remotely-sensed and surface-measured snow water equivalent data. Schmidlin, T.W., [1989, p.208-212, eng] **44-4014**
- Snowpack water losses during melt in a deciduous forest. Buttle, J., et al. [1989, p.267-271, eng] **44-4025**
- National Weather Service gamma snow system physics and calibration. Fritzsche, A.E., [1982, 37p., eng] **44-4260**
- Daily snow data in the United States. Robinson, D.A., [1989, p.120-130, eng] **44-4261**
- Snow temperature**
- Exothermic model of percolation zone in a glacier. Cai, B.L., et al. [1989, p.312-314, eng] **44-289**
- Snow cover observations in Sapporo, 1986-87. Akitaya, E., et al. [1988, p.1-9, jpn] **44-456**
- Snow surveys in the coastal regions of the Japan Sea. Kawashima, K., et al. [1988, p.11-25, jpn] **44-457**
- Snow temperature and meltwater percolation of a glacier. Cai, B.L., et al. [1989, p.60-68, chi] **44-651**
- Snow and ground thermal regimes in a subarctic woodland. Desrochers, D.T., [1989, p.172-183, eng] **44-4010**
- Snow thermal properties**
- Heat conduction in snow. Yen, Y.C., [1989, p.21-32, eng] **44-827**
- Air movement in snow due to windpumping. Colbeck, S.C., [1989, p.209-213, eng] **44-1547**
- Snow cover estimates through calculations of ground temperature and frost depth. Cherniaev, V.P., [1985, p.31-37, rus] **44-2368**
- Retardation method of snow melt for application to cold storage. Fukuda, M., et al. [1986, p.429-433, jpn] **44-2484**
- Role of land ice and snow in climate. Kuhn, M.H., [1989, p.17-28, eng] **44-2782**
- Thermophysical properties of ice, snow, and sea ice. Fukusako, S., [1990, p.353-372, eng] **44-2795**
- Thermal conductivity of snow and snow/metal mixtures. Murakami, S., et al. [1989, p.13-25, jpn] **44-3123**
- Mixture theory for a phase-changing snowpack. Morland, L.W., et al. [1990, p.271-285, eng] **44-3299**
- Snow trenches**
- Verification of trench-digging effect for control of snow drifting. Kubota, H., et al. [1989, p.121-125, jpn] **44-2866**
- Snow tunnels**
- Tunnels formed below snow. Uematsu, T., [1986, p.611-615, jpn] **44-2507**
- Snow vehicles**
- Technical feasibility test of mobile oversnow transport with sled. Starnes, D.B., [1989, 103p. + appends., eng] **44-477**
- Initial production test of the M973 small unit support vehicle. Foster, G.K., et al. [1989, 128p. + appends., eng] **44-478**
- Leitner company's snow road equipment. [1989, p.57-61, ita] **44-910**
- Snow water content**
- Hour-to-hour snowmelt rates and lysimeter outflow during an entire ablation period. Martinec, J., [1989, p.19-28, eng] **44-168**
- Wet-snow metamorphism in relation to liquid water content. Brun, E., [1989, p.22-26, eng] **44-542**
- Effects of solar radiation on the formation of weak wet snow. Izumi, K., [1989, p.120-123, eng] **44-559**
- Estimating snow moisture reserve and soil humidity from cosmic rays. Avdiushin, S.I., et al. [1988, p.163-165, eng] **44-1105**
- Effect of vegetation on the distribution of snow cover in mountains. Severskii, S.I., [1989, p.138-145, rus] **44-1395**
- Optical method of determining snow moisture. Zalikhanov, M.Ch., et al. [1989, p.29-33, rus] **44-1780**
- Estimates of antarctic precipitation. Bromwich, D.H., [1990, p.627-629, eng] **44-2104**
- Conditions for the formation and long-range forecasting of spring floods. Markova, E.E., [1989, p.53-61, rus] **44-2933**
- Snow water equivalent**
- Applied hydrology in the development of northern basins. [1988, 347p., eng] **44-232**
- Snow-radar: an efficient tool for areal snow pack assessments. Killingtveit, A., et al. [1988, p.145-157, eng] **44-244**
- Determination of snow water equivalents by using NOAA-satellite images. Kuitinen, R., [1988, p.159-168, eng] **44-245**
- Monitoring of snow cover and surface runoff in Greenland by use of NOAA-AVHRR satellite data. Sögaard, H., et al. [1988, p.179-188, eng] **44-247**
- Groundwater regime and runoff in forests and swamps in Siberia. Konstantinov, V.D., [1986, p.10-16, eng] **44-316**
- Effect of forest biomass on airborne measurement of snow water equivalent. Carroll, S.S., et al. [1989, p.313-319, eng] **44-496**
- Direction toward improved streamflow forecasting in the Western mountains. Day, G.N., et al. [1989, p.79-89, eng] **44-507**
- Assessing the effects of climatic changes on snowpack and streamflow. Cooley, K.R., [1989, p.118-121, eng] **44-511**
- Analysis of snow water equivalent data used in flood forecasting. Carroll, T.R., [1989, p.138-140, eng] **44-516**
- Snowpack changes at a low elevation site. Kattelmann, R., et al. [1989, p.141-144, eng] **44-517**
- Six years of snow-fence testing in France. Brugnol, G., [1989, p.16-19, eng] **44-540**
- Snow accumulation in an alpine watershed, Sierra Nevada, CA. Elder, K., et al. [1989, p.56-63, eng] **44-549**
- Discrimination between snow and clouds using remote sensing. Chen, X.Z., et al. [1988, p.94-99, chi] **44-640**
- Water yield from forest snowpack management. Ffolliott, P.F., et al. [1989, p.199-2007, eng] **44-834**
- Uneven snow cover and snow water equivalent estimates. Carroll, S.S., et al. [1989, p.1505-1510, eng] **44-835**
- Snow water equivalent in a mountain basin using satellite data. Rango, A., et al. [1989, p.740-745, eng] **44-1201**
- Effects of forests on snow reserves and snow melting. Rubtsov, M.V., et al. [1986, p.8-13, eng] **44-1731**
- Snow cover and maximum leachate discharge of a sanitary landfill. Ettala, M., [1986, p.187-202, eng] **44-1817**
- Water flow into reservoirs of large hydroelectric plants. Dement'ev, N.F., et al. [1988, p.58-63, eng] **44-1836**
- Calculating river flow formation in a forest drainage area. Nazarov, N.A., et al. [1988, 107p., rus] **44-1883**
- Estimating maximum spring runoff of rivers and intermittent streams. Fomenko, I.A., et al. [1988, p.19-33, rus] **44-2126**
- Spring runoff formation in small rivers in forest areas. Pavlenko, G.V., et al. [1988, p.114-119, rus] **44-2128**
- Operational snow accumulation and snowmelt modeling. Vehviläinen, B., [1989, p.213-222, eng] **44-2193**
- Controlled snow melting as water supply. Takahara, H., et al. [1985, p.440-445, jpn] **44-2337**
- Snow as water resource. Fujita, M., et al. [1988, p.573-578, jpn] **44-2730**
- Characteristics of snowmelt and its initial phases in chernozem regions. Riazantsev, V.N., et al. [1984, p.74-78, rus] **44-2798**
- Forecasting spring runoff in southern Sakhalin rivers. Mel'nikova, Z.D., et al. [1989, p.42-47, rus] **44-2928**
- Snow density as a criterion representing a mountain snow survey point. Gavrilov, G.G., [1989, p.143-146, rus] **44-2932**
- Long-range forecasting of the extent and peak of spring floods in Siberia. Markova, E.E., et al. [1989, p.62-69, rus] **44-2934**
- Water equivalent of snow on the running area of mudflow. Yamada, T., et al. [1989, p.41-49, jpn] **44-3125**
- Estimations of the water equivalent and depth of snow cover using a beam sensor. Akitaya, E., [1989, p.111-115, jpn] **44-3130**
- Effect of slope exposure on snow cover distribution in the mountains. Severskii, S.I., [1989, p.152-162, rus] **44-3243**
- The snow-radar: a new device for areal snow depth measurements. Andersen, T., et al. [1987, p.269-284, eng] **44-3316**
- Snow-radar: an efficient tool for areal snow pack assessments. Killingtveit, A., et al. [1988, p.259-271, eng] **44-3324**
- Runoff in rivers from rain and snow. Suzuki, T., et al. [1989, p.35-38, jpn] **44-3630**
- Satellite and geographic information system estimates of Colorado River Basin snowpack. Ferris, J.S., et al. [1989, p.1629-1635, eng] **44-3776**
- Using aerial gamma surveys of snow cover to forecast spring flood runoff. Vershinina, L.K., [1989, p.82-96, rus] **44-3910**
- Computerized methods to analyze variations in airborne snow water equivalent estimates. Carroll, S.S., et al. [1990, p.35-46, eng] **44-3983**
- Comparison between remotely-sensed and surface-measured snow water equivalent data. Schmidlin, T.W., [1989, p.208-212, eng] **44-4014**
- National Weather Service gamma snow system physics and calibration. Fritzsche, A.E., [1982, 37p., eng] **44-4260**
- Snow wood friction**
- See also: Wood snow friction
- Snowdrifts**
- Glacio-nival phenomena in the Polar Urals. Khodakov, V.G., et al. [1989, p.110-118, rus] **44-344**
- Salination flow measurements relating to modeling of snowdrifting. Kind, R.J., et al. [1982, p.89-102, eng] **44-417**
- Six years of snow-fence testing in France. Brugnol, G., [1989, p.16-19, eng] **44-540**
- Influence of strong winds on snow distribution and avalanche activity. Meister, R., [1989, p.195-201, eng] **44-573**
- Process-based model of snow drifting. Pomeroy, J.W., [1989, p.237-240, eng] **44-581**
- Snow-collection mechanisms and the capacities of snow fences. Takeuchi, M., [1989, p.248-251, eng] **44-583**
- Numerical simulation of snowdrift development. Uematsu, T., et al. [1989, p.265-268, eng] **44-587**
- Blowing snow in eastern Antarctica. Wendler, G., [1989, p.264-265, eng] **44-661**
- Test for aerodynamic streamlining and snow load distribution pattern. Korotich, A.V., et al. [1989, p.47-51, rus] **44-1055**
- TsPZ snowdrift gages and results of their testing. Chernous, P.A., et al. [1989, p.95-101, rus] **44-1577**
- Snow transfer in a storm and diagnosing an avalanche hazard. Chernous, P.A., [1989, p.101-111, rus] **44-1578**
- Chemical composition of snow drift on Mizuho Plateau. Osada, K., et al. [1989, p.70-78, eng] **44-1803**
- New prevention technique of snow drifting. Matsuda, M., et al. [1985, p.547-552, jpn] **44-2344**
- Snow-and-ice phenomena in the Polar Urals. Khodakov, V.G., et al. [1989, p.119-130, eng] **44-2440**
- Weather forecasting for road protection against snowdrifts. Sato, S., et al. [1986, p.71-75, jpn] **44-2447**
- CRREL's snowdrift wind tunnel. Anno, Y., [1987, p.405-410, jpn] **44-2553**
- Blowing-snow numerical simulation. Uematsu, T., et al. [1987, p.411-416, jpn] **44-2554**
- Estimating the size of snow banks along sections of earth canals. Kuts, S.I., [1988, p.42-44, rus] **44-2607**
- Numerical simulation of snowdrift development. Uematsu, T., et al. [1989, p.115-120, jpn] **44-2865**
- Drift of snow by wind. Ono, S., et al. [1989, p.353-357, jpn] **44-2898**
- Roof snowdrifts due to blizzards. O'Rourke, M.J., [1990, p.641-658, eng] **44-3197**
- Volatile fatty acids in snow drift. Ohta, K., et al. [1990, p.36-42, eng] **44-3545**
- Transport rates of chemical constituents by drifting snow at Mizuho Station. Osada, K., et al. [1990, p.43-50, eng] **44-3546**
- Snowfall**
- Radar echoes of precipitating snow clouds in Japan. Kikuchi, K., et al. [1989, p.221-230, eng] **44-379**
- Determination of nitrophenols in rain and snow. Alber, M., et al. [1989, p.540-545, eng] **44-398**
- Snow accumulation determined by glaciochemistry. Karakoram, Pakistan. Wake, C.P., [1989, p.279-284, eng] **44-590**
- Snow cover on the Heihe River in the Qilian Mts. Wang, J., [1988, p.55-63, chi] **44-636**
- Synoptic features of 1986 winter at Arctowski Station. Kowalski, D., et al. [1989, p.57-71, eng] **44-702**
- Regional characteristics of snow damage in Japan. Yamada, T., et al. [1988, p.57-72, jpn] **44-732**
- Doppler radar measurements of a kinematic wind field. Tsuboki, K., et al. [1988, p.73-88, jpn] **44-733**
- Methods to measure and collect snowfall. Berg, N.H., et al. [1989, 137p., eng] **44-880**
- Observation of snow particles in Kinki District, Japan. Sato, N., [1989, p.161-169, jpn] **44-1040**
- Snow collector for acid precipitation studies. Hall, D.J., et al. [1988, 69p., eng] **44-1051**
- Snow and rain washout coefficients for inorganic iodine vapor. Engelmann, R.J., et al. [1985, 6p., eng] **44-1103**
- Study of the calculation of terminal velocity of falling snowflakes. Suzuki, M., et al. [1988, p.27-32, jpn] **44-1308**
- JARE-26 meteorological observations at Showa Station, 1985. Meshida, S., et al. [1989, p.191-219, jpn] **44-1470**
- Snowfall and tropospheric mid-level jet. Shiraki, M., [1988, p.1-2, eng] **44-1612**

Snowfall (cont.)

- Convective snow band over Japan Sea, Part 2. Ikawa, M., [1988, p.13-43, eng] **44-1613**
- Radar observations of snowfalls in 1985 over the Shinjo basin - vertical scanning. Uyeda, H., et al. [1987, p.121-130, eng] **44-1748**
- Vertical structure in convective clouds producing graupels and snowflake aggregates. Konishi, H., et al. [1989, p.41-47, eng] **44-1800**
- Measurement of snowflake size and falling velocity by image processing. Muramoto, K., et al. [1989, p.48-54, eng] **44-1801**
- Aid to forecasting heavy snowfall episodes. Auer, A.H., Jr., [1987, p.11-14, eng] **44-2085**
- DDT II: computerized lake-effect snow forecasts. Dockus, D.A., [1988, p.18-26, eng] **44-2088**
- Magic chart for forecasting snow amounts. Chaston, P.R., [1989, p.20-22, eng] **44-2089**
- Snow and avalanches in the Swiss Alps, winter 1987-88. Dockus, D.A., [1988, p.18-26, eng] **44-2112**
- Modeling snowfall-to-snowmelt delay. Yevjevich, V., et al. [1989, p.203-211, eng] **44-2192**
- Theoretical assessment for microwave propagation in snowfall. Asari, E., [1985, p.383-388, jpn] **44-2332**
- Example of very-short-term prediction experiments of snowfall in Sapporo City. Asuma, Y., et al. [1985, p.480-485, jpn] **44-2339**
- Visual range monitor used for blowing snow. Fukuzawa, Y., et al. [1985, p.516-521, jpn] **44-2341**
- Estimating the effects of rain and snow on potential reactor accident consequences. ApSimon, H.M., et al. [1986, p.235-242, eng] **44-2348**
- On the characteristics of snowfall at Aomori City. Rikishi, K., et al. [1989, p.253-264, jpn] **44-2354**
- Radar observation of snowfall. Yoshino, F., et al. [1986, p.55-60, jpn] **44-2446**
- Some measuring methods of snowfall rate for radar snow gauge. Endoh, T., et al. [1986, p.92-97, jpn] **44-2450**
- High sensitivity snow weight measuring system. Nishikawa, Y., et al. [1986, p.103-106, jpn] **44-2452**
- Forecasts of mesoscale snowfall for southern Ontario. Burrows, W.R., [1990, p.2127-2141, eng] **44-2648**
- Proceedings. [1988, 676p., jpn] **44-2666**
- Forecasting of successive snowstorms by radio waves. Asari, E., [1988, p.125-130, jpn] **44-2671**
- Snowfall forecasting method and its accuracy. Shimomura, C., et al. [1988, p.136-141, jpn] **44-2673**
- Snow gauges of the Govt Industrial Development Lab. Hokkaido. Sayama, S., et al. [1988, p.157-163, jpn] **44-2677**
- Climatological study on heavy snowfall in Hokkaido, Pt. 2. Yamada, T., et al. [1988, p.185-189, jpn] **44-2682**
- Snowfall forecasting method and its accuracy (Vol.2). Shimomura, C., et al. [1989, p.95-100, jpn] **44-2862**
- Snowfall distribution in Hokkaido. Shibuya, T., [1989, p.541-546, jpn] **44-2912**
- Snow fall strength measurement using snow pressure pillow system. Sayama, S., et al. [1989, p.561-563, jpn] **44-2916**
- Measurement of snowfall intensity by optical snow detector. Taharasaki, K., et al. [1989, p.564-568, jpn] **44-2917**
- Observation of the falling motion of early snowflakes. Part II. On the variation of falling velocity. Kajikawa, M., [1989, p.731-738, eng] **44-3305**
- Structure of a land breeze and snowfall enhancement at the leading edge. Tsuboki, K., et al. [1989, p.757-770, eng] **44-3307**
- Doppler radar observation of orographic modification of snow clouds - a case of enhanced snowfall. Nakai, S., et al. [1990, p.1-16, jpn] **44-3310**
- Determination of a Z-R relationship for snowfall using a radar and high sensitivity snow gauges. Fujiyoshi, Y., et al. [1990, p.147-152, eng] **44-3418**
- Mass-dimensional relationships for ice particles and the influence of riming on snowfall rates. Mitchell, D.L., et al. [1990, p.153-163, eng] **44-3419**
- Snow disasters in the Tohoku district. Ito, T., [1989, p.52-56, jpn] **44-3439**
- Some characteristics of falling snow. Mellor, M., et al. [1988, p.201-206, eng] **44-3511**
- Radar rain and snow gauges (Part 2). Takahashi, T., et al. [1989, p.5-10, jpn] **44-3522**
- Measurements of falling attitudes of snowflakes using two video cameras. Muramoto, K., et al. [1990, p.95-99, eng] **44-3549**
- Inclusion of sensible heating in convective parameterization applied to lake-effect snow. Ellenton, G.F., et al. [1979, p.551-565, eng] **44-3748**
- Snow particle size spectra in lake effect snows. Braham, R.R., Jr., [1990, p.200-207, eng] **44-3795**
- Topographically induced convective snowbands over the Baltic Sea and their precipitation distribution. Andersson, T., et al. [1990, p.299-312, eng] **44-3906**
- Snowstorms along the northeastern coast of the United States, 1955 to 1985. Kocin, P.J., et al. [1990, 280p., eng] **44-3973**
- Comparison of measurements of snowfall by radar using an S-band and an X-band transmitter. Giguere, A., [1989, p.92-98, eng] **44-4001**
- Application of aerosol physics to snow research. Hogan, A.W., [1989, p.201-207, eng] **44-4013**
- Alternate use of two different emitters in radar observation of mixed precipitation. Giguere, A., [1989, p.252-256, fre] **44-4023**
- One-year lag between heavy snow years in Eurasia and North America. Iwasaki, T., [1990, p.124-126, eng] **44-4176**
- Effect of large industrial cities on solid precipitation. Zabolotskaia, T.N., et al. [1989, p.46-55, rus] **44-4230**
- Snowfall forecasting meteorological service for motor vehicle transportation. Kuprienko, V.G., et al. [1989, p.33-37, rus] **44-4322**
- Mass and number flux of ice crystals during Sierra snowfall. Ahmed, S.A., [1989, 86p., eng] **44-4416**
- Snowflakes**
- Automatic close-up system of snow particles. Fujiyoshi, Y., et al. [1988, p.231-235, jpn] **44-743**
- Observation of snow particles in Kinki District, Japan. Sato, N., [1989, p.161-169, jpn] **44-1040**
- Snow clones. Vogel, S., [1989, p.52-54, eng] **44-1093**
- Diffusion on a fractal state space. Krebs, W.B., [1989, 39p., eng] **44-1225**
- Study of the calculation of terminal velocity of falling snowflakes. Suzuki, M., et al. [1988, p.27-32, jpn] **44-1308**
- Measurement of the riming amount on snowflakes. Harimaya, T., et al. [1989, p.355-366, eng] **44-1622**
- Measurement of snowflake size and falling velocity by image processing. Muramoto, K., et al. [1989, p.48-54, eng] **44-1801**
- Measurements of falling attitudes of snowflakes using two video cameras. Muramoto, K., et al. [1990, p.95-99, eng] **44-3549**
- Simulation of snowflake by cellular automata. Liu, S., et al. [1989, p.193-200, eng] **44-3952**
- Application of aerosol physics to snow research. Hogan, A.W., [1989, p.201-207, eng] **44-4013**
- Scavenging of aerosol particles by snow flakes. Mitra, S.K., et al. [1990, p.1247-1254, eng] **44-4478**
- Snowmelt**
- Hydrologic and chemical flux in Loch Vale watershed, Rocky Mountain National Park. Baron, J., et al. [1987, p.141-155, eng] **44-79**
- Erosion and human land-use in the Oreälven River valley, northern Sweden. Ivarsson, H., et al. [1988, p.137-150, swe] **44-94**
- Predictive snow cover and snowmelt models. Bennis, S., et al. [1989, p.219-226, fre] **44-121**
- Snow transport, snowmelt and meltwater infiltration in grasslands. Gray, D.M., et al. [1989, p.8-22, eng] **44-138**
- Snowmelt and water percolation in snow and firn. Bozhinskii, A.N., et al. [1989, p.11-18, eng] **44-167**
- Hour-to-hour snowmelt rates and lysimeter outflow during an entire ablation period. Martinec, J., [1989, p.19-28, eng] **44-168**
- Applied hydrology in the development of northern basins. [1988, 347p., eng] **44-232**
- Continuous electrochemical monitoring of snow melt in Utah, U.S.A. Metcalf, R.C., et al. [1988, p.169-178, eng] **44-246**
- Modelling extreme effective precipitation. Bergström, S., et al. [1988, p.191-197, eng] **44-248**
- Satellite monitoring of snow cover and its melt in China. Zeng, Q.Z., et al. [1988, p.52-66, eng] **44-266**
- Changes in stream hydrochemistry during spring snowmelt in Norway. Ferrier, R.C., et al. [1989, p.321-337, eng] **44-267**
- Meteorological effects on snowmelt runoff, Caucasus. Ananicheva, M.D., et al. [1989, p.160-164, rus] **44-354**
- Evolution of snowmelt simulation model into a forecasting tool. Rangó, A., [1989, p.45-51, eng] **44-503**
- Reservoir operations guides - application on three reservoirs. Marron, J.K., et al. [1989, p.69-78, eng] **44-506**
- Direction toward improved streamflow forecasting in the Western mountains. Day, G.N., et al. [1989, p.79-89, eng] **44-507**
- Statistical forecast model for Libby Basin, Montana. Wortman, R.T., [1989, p.100-107, eng] **44-509**
- Assessing the effects of climatic changes on snowpack and streamflow. Cooley, K.R., [1989, p.118-121, eng] **44-511**
- Snow line estimates derived from aerial surveys. Allen, M.W., et al. [1989, p.145-148, eng] **44-518**
- Runoff from the Greenland ice sheet and hydro-electric power. Braithwaite, R.J., et al. [1989, p.12-15, eng] **44-539**
- Spatial variability of snow-pack outflow at a site in Sierra Nevada, U.S.A. Kattelmann, R., [1989, p.124-128, eng] **44-560**
- Effects of spatial and temporal variation in snowmelt on meltwater chemistry. Williams, M.W., et al. [1989, p.285-288, eng] **44-591**
- Snow cover, snowmelt and runoff in the Himalayan river basins. Dey, B., et al. [1988, 37p., eng] **44-624**
- Remote sensing of snow cover and spring runoff, Qilian Mts. Zeng, Q.Z., et al. [1988, p.40-48, chi] **44-634**
- Snowmelt runoff of the Heihe River in the Qilian Mts. Feng, X.Z., et al. [1988, p.64-74, chi] **44-637**
- Runoff forecasting from snowmelt. Huanghe and Heihe rivers. Zhang, S.Y., et al. [1988, p.75-84, chi] **44-638**
- Snow cover mapping using Landsat data. Chen, X.Z., et al. [1988, p.100-105, chi] **44-641**
- Meltwater percolation through snow cover, Pt. I. Hamada, K., et al. [1988, p.89-101, jpn] **44-734**
- Spring melt simulation in the Eau Vivecs watershed, Montmorency Forest, Quebec. Berraja, M., et al. [1988, p.197-203, fre] **44-750**
- Method of estimating flood-frequency parameters for streams in Idaho. Kjelstrom, L.C., et al. [1981, 99p., maps, eng] **44-824**
- Water yield from forest snowpack management. Ffolliott, P.F., et al. [1989, p.1999-2007, eng] **44-834**
- Alkalinity of streamwater during snowmelt. Molot, L.A., et al. [1989, p.1658-1666, eng] **44-997**
- Snowmelt mechanism of snow cover in a warm region. Watanabe, K., et al. [1987, p.105-120, jpn] **44-1288**
- Test of snowmelt-runoff model for a major river basin in western Himalayas. Dey, B., et al. [1989, p.167-178, eng] **44-1323**
- Diagnostic strategies of an expert system for simulating snowmelt runoff. Engman, E.T., [1988, p.242-249, eng] **44-1410**
- Mathematical model of lake acidification. Goldstein, R.A., et al. [1985, p.1-8, eng] **44-1466**
- Merits of statistical criteria for the performance of hydrological models. Martinec, J., et al. [1989, p.421-432, eng] **44-1532**
- Predicting rangeland snowmelt runoff with SPUR hydrology model. Wilcox, B.P., et al. [1989, p.1351-1357, eng] **44-1560**
- Avalanche snow in seasonal snowmelt of Himalayas. De Scally, F.A., [1989, n.p., eng] **44-1601**
- Eurasian snow cover and seasonal forecast of Indian summer monsoon rainfall. Bhanu Kumar, O.S.R.U., [1988, p.515-525, eng] **44-1681**
- Estimation of melt rate in seasonally snow-covered mountainous areas. Moussavi, M., et al. [1989, p.249-263, eng] **44-1682**
- Problems of snowmelt runoff modelling for a variety of physiographic and climatic conditions. Leavesley, G.H., [1989, p.617-634, eng] **44-1683**
- Sagebrush rangeland hydrology and evaluation of the SPUR hydrology model. Wilcox, B.P., et al. [1989, p.653-666, eng] **44-1737**
- Characterization of snowmelt from a dump site. Pinard, D., et al. [1989, p.211-215, fre] **44-1763**
- Snow cover and snowmelt runoff model in the forest zone. Motovilov, H.G., et al. [1989, p.17-26, eng] **44-1823**
- Water flow into reservoirs of large hydroelectric plants. Dement'ev, N.F., et al. [1988, p.58-63, eng] **44-1836**
- Replenishment of soil moisture reserves of agricultural fields. Shutov, V.A., et al. [1989, p.64-71, eng] **44-1837**
- Water contributions during snowmelt in a small watershed. McDonnell, J.J., et al. [1987, p.257-266, eng] **44-1867**
- Calculating river flow formation in a forest drainage area. Nazarov, N.A., et al. [1988, 107p., rus] **44-1883**
- Remote sensing of snow and evapotranspiration. Schmugge, T., ed. [1985, 167p., eng] **44-1999**
- Sorption concentration of mercury (II) on silica gel. Simonova, L.N., et al. [1987, p.1047-1050, rus] **44-2054**
- Spring runoff formation in small rivers in forest areas. Pavlenko, G.V., et al. [1988, p.114-119, rus] **44-2128**
- New directions for surface water modeling. Kavvas, M.L., ed. [1989, 444p., eng] **44-2190**
- Floods and droughts in Lake River basin - the hydrograph shape. Buchtele, J., [1989, p.133-142, eng] **44-2191**
- Modeling snowfall-to-snowmelt delay. Yevjevich, V., et al. [1989, p.203-211, eng] **44-2192**
- Operational snow accumulation and snowmelt modeling. Vehviläinen, B., [1989, p.213-222, eng] **44-2193**
- EXSRM, an expert system for snowmelt runoff model (SRM). Engman, E.T., et al. [1989, p.417-426, eng] **44-2194**
- Snowmelt caused by pyroclastic surge at Mount St. Helens volcano, 1980. Waitt, R.B., [1989, p.138-157, eng] **44-2350**
- Thermal response of downhill skis. Warren, G.C., et al. [1989, 40p., eng] **44-2361**
- Ice-snow meltwater debris flow in the Dongru Longba, China. Lu, R.R., et al. [1989, p.148-160, chi] **44-2409**
- Automatic monitoring of short duration snowmelt events in a Nova Scotia headwater stream. Howell, G.D., et al. [1989, p.145-153, eng] **44-2434**
- Chemical dynamics of snowmelt runoff. Suzuki, K., et al. [1986, p.336-339, jpn] **44-2477**
- Utilization of snow-melt water at coastal region. Fukami, H., et al. [1986, p.348-353, jpn] **44-2479**
- Snow as water resource. Fujita, M., et al. [1988, p.573-578, jpn] **44-2730**
- Characteristics of snowmelt and its initial phases in chernozem regions. Riazantsev, V.K., et al. [1984, p.74-78, rus] **44-2798**

- Snow cover affected by a city. Prokacheva, V. G., et al., [1989, 176p, + append., rus] **44-2804**
- Decrease of ground surface temperature from seepage of snowmelt. Fukami, H., et al., [1989, p.320-324, jpn] **44-2896**
- Calculation of snowmelt and run-off in a river basin. Ohashi, N., et al., [1989, p.358-363, jpn] **44-2899**
- Modeling the effects of soil frost and snowmelt on runoff and erosion. Young, R.A., et al., [1990, p.99-107, eng] **44-2971**
- Influence of management practices on snowmelt runoff. Chanasyk, D.S., et al., [1990, p.120-124, eng] **44-2974**
- Runoff from frozen soils. Seyfried, M.S., et al., [1990, p.125-134, eng] **44-2975**
- Effect of frozen soil on erosion: a model approach. Butterweg, P.F., [1990, p.135-144, eng] **44-2976**
- Snowmelt infiltration into completely frozen subsoiled soils. Gray, D.M., et al., [1990, p.161-170, eng] **44-2979**
- Impact of frozen soil on prairie hydrology. Granger, R.J., et al., [1990, p.247-256, eng] **44-2991**
- Field and laboratory techniques for frozen and thawing soil. McCool, D.K., et al., [1990, p.271-278, eng] **44-2994**
- Development and testing of a snowmelt-runoff forecasting technique. Rango, A., et al., [1990, p.135-144, eng] **44-3006**
- Automated systems and the Soil Conservation Service in predicting and managing for drought. Shafer, B.A., et al., [1990, p.41-46, eng] **44-3028**
- Snowmelt from perennial snowfield in Daisetsu Mountains, 1989. Yamada, T., et al., [1989, p.23-63, jpn] **44-3043**
- Water equivalent of snow on the running area of mudflow. Yamada, T., et al., [1989, p.41-49, jpn] **44-3125**
- Snowmelt and stream flow in the Sierra Nevada. MacDonald, I.H., [1990, 405p, eng] **44-3269**
- Geologic influences on fluvial hydrology in some watersheds of New Mexico. Kelson, K.T., et al., [1989, p.671-690, eng] **44-3396**
- Model for estimating daily snowmelt. Akatsu, K., et al., [1990, p.13-23, jpn] **44-3402**
- Influences of deforestation on snowmelt runoff. Shimizu, T., [1990, p.29-34, jpn] **44-3404**
- Report on measurement of riverbed waves during snowmelt runoff. Nakayama, H., et al., [1987, p.423-428, jpn] **44-3517**
- Simulation of groundwater considering snowmelt. Watanabe, K., et al., [1987, p.501-506, jpn] **44-3518**
- Forecasting system for snowmelt runoff in the Ruman River. Part 2. Amano, H., et al., [1989, p.61-66, jpn] **44-3589**
- Spring runoff characteristics of the upper Yellow River. Lan, Y., [1989, p.383-391, chi] **44-3615**
- Snowmelt in farmland development. Sawada, S., et al., [1989, p.115-118, jpn] **44-3631**
- Water and suspended solids discharge during snowmelt. Chacho, F.F. Jr., [1990, p.167-174, eng] **44-3659**
- Prediction model for snowmelt using a heat balance method. Kondo, J., et al., [1990, p.375-384, eng] **44-3874**
- Simulation of runoff and nitrate transport from mixed basins in Sweden. Brandt, M., [1990, p.13-34, eng] **44-3982**
- Spring melting at an Alpine site: the influence of mineral dust. Delmas, V., [1989, p.36-44, fre] **44-3997**
- Snowmelt runoff studies in upper Yamuna basin. Parsad, R.S., et al., [1989, p.213-218, eng] **44-4015**
- Snowpack water losses during melt in a deciduous forest. Buttle, J., et al., [1989, p.267-271, eng] **44-4025**
- Effects of climate change on a river basin in California. Lettenmaier, D.P., et al., [1989, p.11-1-52, eng] **44-4249**
- Snowmelt runoff modeling in a balsam fir forest. Prevost, M., et al., [1990, p.1067-1077, eng] **44-4271**
- Soil, vegetation and climatic influences on slope hydrology. Ellemers, I., Woo, M.K., et al., [1990, p.85-93, eng] **44-4494**
- See *also* Meltwater, Snow melting
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- See *also* Snow vehicles
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- Avalanche impact load at snow shed. Matsuba, Y., [1985, p.245-250, jpn] **44-2323**
- Development of arch type PC shelters. Wakabayashi, O., et al., [1986, p.307-312, jpn] **44-2474**
- On the stress measurement of the snow-shelter. Satoh, M., et al., [1986, p.313-318, jpn] **44-2475**
- Precast concrete snow shelters. Wakabayashi, O., [1987, p.433-438, jpn] **44-2558**
- Precast concrete snowsheds. Shichiku, T., [1988, p.208-213, jpn] **44-2686**
- Protective wall (blizzard guard) against snow. Tomabechi, T., et al., [1989, p.132-137, jpn] **44-2868**
- On development of light weight shelter. Gotoh, Y., [1989, p.138-143, jpn] **44-2869**
- On development of frame shelter. Matsuba, Y., [1989, p.144-149, jpn] **44-2870**
- Snowstorms**
- Comments on "Use of enhanced IR visible satellite imagery to determine heavy snow areas". Elkins, H.A., [1989, p.251-255, eng] **44-2665**
- Thunderstorms with snow. Elkins, H.A., [1987, 91p, eng] **44-1111**
- Proceedings of the Third All-Union Conference on Avalanches, 1986. [1989, 247p, rus] **44-1562**
- Modeling variable conditions in snow cover on mountain slopes. Bozhinski, A.N., et al., [1989, p.61-68, rus] **44-1573**
- Strength of snow deposited by a snowstorm. Zhidkov, V.A., et al., [1989, p.81-95, rus] **44-1576**
- TSPZ snowdrift gages and results of their testing. Chernous, P.A., et al., [1989, p.95-101, rus] **44-1577**
- Snow transfer in a storm and diagnosing an avalanche hazard. Chernous, P.A., [1989, p.101-111, rus] **44-1578**
- Temperature drops produced by snow cloud microbursts. Shirooka, R., et al., [1989, p.367-380, eng] **44-1749**
- Lake-effect snowshowers. Horne, T.A., [1989, p.91, eng] **44-1818**
- Forecasting of successive snowstorms by radio waves. Asari, E., [1988, p.125-130, jpn] **44-2671**
- Disaster created by snow and ice in Hokkaido. Yamada, T., et al., [1988, p.179-184, jpn] **44-2681**
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- Meteorological observations at Showa Station, 1987. Kaneto, S., et al., [1990, p.15-45, jpn] **44-3740**
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- Snowstorms along the northeastern coast of the United States, 1955 to 1985. Kocin, P.J., et al., [1990, 280p, eng] **44-3973**
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- Effects of freezing on aggregate stability of soils. Lehrsche, G.A., et al., [1990, p.61-69, eng] **44-2967**
- Heat and water flux in a diurnally freezing and thawing soil. Pikul, J.L., Jr., et al., [1990, p.113-119, eng] **44-2973**
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- Sediments of glacial-interglacial cycles in the Norwegian Sea. Henrich, R., et al., [1989, p.283-319, eng] **44-219**
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- Proximal glacial-marine tills deposited from a stagnant ice-sheet. Drozdowski, E., [1988, p.119-126, eng] **44-1855**
- Fabric and origin of diamictites in end moraines, Animas River valley, Colorado, U.S.A. Johnson, M.D., [1990, p.14-25, eng] **44-2660**
- Resilient properties of Arkansas subgrades. Final report. Elliott, R.P., et al., [1988, 116p, eng] **44-2814**
- Alternative approach to the study of pedogenic chronosequences. Messer, A.C., [1989, p.221-229, eng] **44-3005**
- Soil development at Bear-dmore Glacier. Bockheim, J.G., et al., [1990, p.144-157, eng] **44-4290**
- Soil chemistry**
- Characteristics of Wilkes Land soils. Heatwole, H., et al., [1989, p.225-234, eng] **44-63**
- Modeling the transport of chromium (VI) in soil columns. Selim, H.M., et al., [1989, p.996-1004, eng] **44-67**
- Migration of soluble nickel and copper salts in snow cover. Ratkin, N.E., et al., [1988, p.60-64, rus] **44-196**
- Changes in stream hydrochemistry during spring snowmelt in Norway. Ferrier, R.C., et al., [1989, p.321-337, eng] **44-267**
- Nitrogen fertilizer in soil during winter. Selles, F., et al., [1989, p.551-565, eng] **44-667**
- Mountain meadow soils of alpine lichen wastelands, northern Caucasus. Makarov, M.I., [1985, p.71-73, eng] **44-683**
- Pedogenic gradients in arctic and alpine soils. Birkeland, P.W., et al., [1989, p.193-204, eng] **44-697**
- Decomposition and mycorrhizal processes in tundra soils. Linkins, A.E., [1987, 5p, eng] **44-1248**
- Retention of elements by soils. Buchter, B., et al., [1989, p.370-379, eng] **44-1732**
- Analytical methods for determining nitroguanidine in soil and water. Walsh, M.F., [1989, 27p, eng] **44-1785**
- Soil nitrogen changes during primary succession on a floodplain in Alaska, U.S.A. Walker, L.R., [1989, p.341-349, eng] **44-2007**
- Landscape-geochemical analysis of frozen-taiga ecosystems. Shchetnikov, A.I., [1989, 127p, rus] **44-2068**
- Weathering trends in fine debris beneath a snow patch. Niwot Ridge, Front Range, Colorado. Thorn, C.F., et al., [1989, p.307-321, eng] **44-2636**
- Brief and vigorous N₂O production by soil at spring thaw. Christensen, S., et al., [1990, p.1-4, eng] **44-2794**
- Ion-pairing RP-HPLC method for determining tetrazene in water and soil. Walsh, M.F., et al., [1989, p.159-179, eng] **44-2832**
- Solute redistribution during soil freezing. Van Loon, W.K.P., et al., [1990, p.186-194, eng] **44-2982**
- Effects of freezing on sulfate salts in North Dakota soils and wetlands. Richardson, J.L., et al., [1990, p.212-215, eng] **44-2985**
- Soil water and solutes in soils after freezing. Hofmann, I.L., et al., [1990, p.263-270, eng] **44-2993**
- Consumption of atmospheric methane by tundra soils. Whalen, S.C., et al., [1990, p.160-162, eng] **44-4037**
- Soil classification**
- Soil formation in the subarctic Kola Peninsula. Nikonov, V.V., et al., [1989, 168p, rus] **44-53**
- Wetland soils and vegetation, arctic foothills, Alaska. Walker, M.D., et al., [1989, 89p, eng] **44-1600**
- Volcanic ash soils in Alaska. Ping, C.L., et al., [1989, p.8-28, eng] **44-2138**
- Classification and diagnostics of cryogenic soils in Yakutia. Flovskaa, I.G., [1987, 172p, rus] **44-3492**
- Cryosphere and biosphere in soil formation. Makeyev, O.V., [1989, p.242-252, rus] **44-3554**
- Cryogenesis and fertility of frozen soils in Yakutia. Flovskaa, I.G., [1989, p.253-257, rus] **44-3555**
- Soil compaction**
- Compaction characteristics in thawing sandy soil under dynamic loads. Inozemtsev, V.K., [1985, p.114-119, rus] **44-208**
- Soil structure and frost depth as affected by soil compaction. Voorhees, W.B., [1990, p.295-303, eng] **44-2998**
- Interaction between shallow foundations in tamped (punched) trenches and heaving soil. Sarhin, V.S., et al., [1990, p.152-156, eng] **44-3255**
- Soil composition**
- Proximal glacial-marine tills deposited from a stagnant ice-sheet. Drozdowski, E., [1988, p.119-126, eng] **44-1855**
- Landscape-geochemical analysis of frozen-taiga ecosystems. Shchetnikov, A.I., [1989, 127p, rus] **44-2068**
- Modeling an upper profile under permafrost conditions. Tabulevich, V.S., ed., [1989, 128p, rus] **44-2074**
- Variations in ice gouge parameters related to different seabed soil types. Ticken, E.J., et al., [1990, p.337-339, eng] **44-2244**
- Lacustrine sedimentary record of ice-dammed Neoglacial Lake Alsek. Schmok, J.P., et al., [1989, p.2092-2105, eng] **44-2273**
- Chromatographic determination of nitroaromatic residues in soil. Jenkins, T.F., et al., [1989, p.890-899, eng] **44-2345**
- Soil formation on the Peninsula Tugtutligssuaq, Melville Bay, North West Greenland. Jakobsen, B.H., [1988, p.86-93, eng] **44-2581**
- Unfrozen water contents of undisturbed and remolded Alaskan silt. Tice, A.R., et al., [1989, p.103-111, eng] **44-3094**
- Deposits on slopes of the Adycha valley. Liubomirov, A.S., [1989, p.13-20, rus] **44-3230**
- Effect of internal confinement on compression strength of frozen sand. Ladanyi, B., et al., [1990, p.8-18, eng] **44-3287**
- Soil conservation**
- Research models for soil conservation. Herndon, L.P., [1990, p.216-219, eng] **44-2986**
- Ecological protection of pipeline routes, European North. Akul'shina, N.P., et al., [1989, p.65-72, rus] **44-4513**
- See *also* Soil erosion; Slope protection
- Soil creep**
- Frozen soil deformation and failure under different loading. Valiev, S.S., et al., [1989, p.465-471, eng] **44-921**
- Time dependent response of frozen soils subject to triaxial stress. Hampton, C.N., et al., [1989, 5 refs., eng] **44-934**
- Volume changes accompanying creep of frozen soil. Knutsson, S., [1988, p.477-487, eng] **44-1165**
- Finite element simulation of behavior of laterally loaded piles in permafrost. Foriero, A., et al., [1990, p.266-284, eng] **44-2402**
- Effect of salinity on strength and creep of frozen ground. Ogata, N., et al., [1983, 27p, jpn] **44-3092**
- Soil dating**
- Organic carbon accumulation in soils near Burroughs Glacier. James, I.A., [1988, p.50-70, eng] **44-49**
- Younger Dryas-Preboreal moraines and deglaciation in southwestern Varmland, Sweden. Lundqvist, J., [1988, p.301-316, eng] **44-80**
- Holocene moraine and paleosol stratigraphy, British Columbia. Osborn, G., et al., [1989, p.311-322, eng] **44-1853**
- Soil erosion**
- Freeze-thaw effects on soil erosion. Edwards, I.M., et al., [1989, p.799-811, eng] **44-1816**
- Slope erosion in cold regions. Fukue, M., et al., [1985, p.298-302, jpn] **44-2328**
- Denudation rates in the Arctic estimated from lake sediments on Spitsbergen, Svalbard. Svendsen, J.I., et al., [1989, p.153-168, eng] **44-2387**

Soil erosion (cont.)

- Frozen soil, runoff and soil erosion research in northeastern Oregon. Zuzel, J.F., et al. (1990, p.4-10, eng) **44-2960**
- Freeze thaw effects on soil strength. Kok, H., et al. (1990, p.70-76, eng) **44-2968**
- Modeling the effects of soil frost and snowmelt on runoff and erosion. Young, R.A., et al. (1990, p.99-107, eng) **44-2971**
- Conservation applications impacted by soil freeze thaw. Formanek, G.E., et al. (1990, p.108-112, eng) **44-2972**
- Influence of management practices on snowmelt runoff. Chanasyk, D.S., et al. (1990, p.120-124, eng) **44-2974**
- Effect of frozen soil on erosion - a model approach. Botterweg, P.F., (1990, p.135-144, eng) **44-2976**
- Runoff and soil erosion from thawing soil. McCool, D.K., (1990, p.171-176, eng) **44-2980**
- Research models for soil conservation. Herndon, L.P., (1990, p.216-219, eng) **44-2986**
- Frozen soil impacts: research needs. Papendick, R.I., et al. (1990, p.220-223, eng) **44-2987**
- Effect of thaw depth on infiltration, runoff and sediment transport. Benoit, G.R., et al. (1990, p.224-230, eng) **44-2988**
- Tillage and residue management systems affect winter soil temperatures. Cullum, R.F., et al. (1990, p.239-246, eng) **44-2990**
- Comparison of three methods for measuring depth of soil freezing. Hanson, C.L., et al. (1990, p.257-262, eng) **44-2992**
- Field and laboratory techniques for frozen and thawing soil. McCool, D.K., et al. (1990, p.271-278, eng) **44-2994**
- Frost data in the Pacific Northwest. Molnau, M., et al. (1990, p.286-289, eng) **44-2996**
- Hydraulic erosion resistance of thawing soil. Van Klaveren, R.W., et al. (1987, 29p, eng) **44-3931**
- Environmental considerations. McGuffey, V.C., et al. (1990, p.83-91, eng) **44-4268**
- Ecological problems during construction of main pipelines. Vantik, V.K., et al. (1989, p.118-123, rus) **44-4522**
- Development of preventive methods against soil erosion in pipeline areas. Babin, L.A., et al. (1989, p.129-133, rus) **44-4524**
- See *also*: Gullies, Soil conservation
- Soil fluidization**
See *also*: Thixotropy
- Soil formation**
Organic carbon accumulation in soils near Burroughs Glacier. James, I.A., (1988, p.50-70, eng) **44-49**
- Soil formation in the subarctic Kola Peninsula. Nikonov, V.V., et al. (1989, 108p, rus) **44-53**
- Pedogenic gradients in arctic and alpine soils. Birkeland, P.W., et al. (1989, p.193-204, eng) **44-697**
- Soil development on moraine ridges in southern Norway. McCarrall, D., et al. (1989, p.31-36, eng) **44-907**
- Contributions to the early Holocene deglaciation history in Greenland. Scholz, H., et al. (1989, p.22-41, eng) **44-1001**
- Volcanic ash soils in Alaska. Ping, C.L., et al. (1989, p.28, eng) **44-2138**
- Pedogenesis of paleosols on moraines, Nyalam, Xizang. Shen, Y.P., et al. (1989, p.269-278, chi) **44-2422**
- Soil formation on the Peninsula Tugitulgissuag, Melville Bay, North West Greenland. Jakobsen, B.H., (1988, p.86-93, eng) **44-2581**
- Cryosphere and biosphere in soil formation. Makeyev, O.V., (1989, p.242-252, rus) **44-3554**
- Cryogenesis and fertility of frozen soils in Yakutia. Elvskaa, I.G., (1989, p.253-257, rus) **44-3555**
- Physical chemical processes in soil cryogenesis. Voronin, A.D., et al. (1989, p.264-268, rus) **44-3557**
- Paleocryogenesis, soil evolution, and structure of soil cover. Velichko, A.A., et al. (1989, p.274-280, rus) **44-3559**
- Paleocryogenesis and soils of the Russian plain. Makeyev, A.O., et al. (1989, p.281-287, rus) **44-3560**
- Agrophysical properties of cryogenic soils. Dugarov, V.I., et al. (1990, 255p, rus) **44-4288**
- Soil development at Beardmore Glacier. Bockheim, J.G., et al. (1990, p.144-157, eng) **44-4290**
- Soil freezing**
Groundwater flow effects in processes of soil freezing. Shulze, A., (1989, p.199-409, eng) **44-48**
- Comparison of two methods of calculating soil freezing depth. Gelfan, A.S., (1989, p.98-104, rus) **44-104**
- Experimental methods for decontaminating soils by freezing. Ayorinde, O.A., et al. (1988, 12p, eng) **44-270**
- Contaminant transport in freezing soils. Ayorinde, O.A., et al. (1988, 29p, eng) **44-271**
- Freezing technique for *in-situ* treatment of contaminated soils. Ayorinde, O.A., et al. (1989, p.489-498, eng) **44-272**
- Multiphase flows in porous media. Morel-Seytoux, H.J., (1987, p.103-174, eng) **44-307**
- Icy reception suits roadheader down to the ground. Weber, R.H., (1989, p.19-21, eng) **44-322**
- Simulation of soil frost depth and effect on runoff. Vehviläinen, B., et al. (1989, p.9-24, eng) **44-376**
- Secondary frost heave in freezing soils. Fowler, A.C., (1989, p.991-1008, eng) **44-531**
- Mapping seasonal soil freezing and thawing within the USSR. Tumel, N.V., et al. (1989, p.30-37, rus) **44-619**
- Nitrogen fertilizer in soil during winter. Selles, F., et al. (1989, p.551-565, eng) **44-667**
- Problems with the segregation potential theory. Van Gassen, W., et al. (1989, p.95-97, eng) **44-833**
- Satellite monitoring of soil freeze-thaw boundary. Ulab, F.T., et al. (1988, 7p, eng) **44-892**
- Modelling seasonally freezing ground conditions, report 1. Anderson, M.G., et al. (1987, 27p, eng) **44-894**
- Modelling seasonally freezing ground conditions, report 2. Anderson, M.G., et al. (1987, 18p, eng) **44-895**
- Temporary support of excavation by artificially frozen ground. Lacy, H.S., et al. (1988, p.46-56, eng) **44-911**
- Behavior of frozen and unfrozen sands in triaxial testing. Youssef, H., et al. (1988, p.57-64, eng) **44-912**
- Model simulations of Winchendon freeze-thaw field data. Edgers, L., et al. (1988, p.65-72, eng) **44-913**
- Field evaluation of criteria for frost susceptibility of soils. Edgers, L., et al. (1988, p.73-85, eng) **44-914**
- Ground freezing, 88, Proceedings. Vol 2 (1989, p.407-593, eng) **44-915**
- Program of the symposium on ground freezing technology, 1988. Jessberger, H.L., (1989, p.407-411, eng) **44-916**
- General report on frost action in soil. Slunga, E., et al. (1989, p.415-417, eng) **44-917**
- Stress-strain behavior and heat-mass transfer of frozen soil. Razbegin, V.N., (1989, p.419-424, eng) **44-918**
- General report on engineering design. Gallavresi, F., (1989, p.477-479, eng) **44-922**
- Shaft lining and freezing wall in shaft sinking by freezing. Chou, W.X., (1989, p.487-490, eng) **44-924**
- Application of AGE to the construction of the ventilation drifts at Selby Wistow Mine. Auld, F.A., (1989, p.513-524, eng) **44-928**
- Recent applications of soil freezing techniques in Spanish construction works. Rojo, J.L., et al. (1989, p.525-532, eng) **44-929**
- Cylindrical Stefan problem sensitiveness to thermal and geometrical parameters. Camès-Pintaux, A.M., et al. (1989, p.547-549, eng) **44-931**
- Ground freezing around chilled gas pipelines. Greene, D.P., et al. (1989, p.555-557, eng) **44-933**
- Short tunnel in Seattle frozen using liquid nitrogen cascade lances. Maishman, D., (1989, p.561-562, eng) **44-935**
- Application of ground freezing at Rogers Pass, Canada. Macfarlane, I.M., et al. (1989, p.573-564, eng) **44-936**
- Experimental studies on reducing methods of uplift force to a steel pipe. Nakagawa, S., et al. (1989, p.565-566, eng) **44-937**
- Frozen rock mass control of shafts. Plesniak, I., et al. (1989, p.571-572, eng) **44-940**
- Behaviour of two kinds of ground freezing, laboratory tests and case histories. Thimus, J.F., et al. (1989, p.577-578, eng) **44-942**
- Freeze-thaw-induced variability of soil shear strength. Kok, H., (1989, 200p, eng) **44-1016**
- Ground freezing by a heat pipe using cold outside air. Matsuo, K., et al. (1984, p.43-52, jpn) **44-1327**
- Water vapor transfer during freezing of peat moisture. Gamaunov, N.I., et al. (1989, p.19-25, rus) **44-1383**
- Effect of a cut layer of frozen peat deposits on its freeze-thaw process. Zhuravlev, A.V., et al. (1989, p.23-26, rus) **44-1400**
- Distribution of the phase front in the freezing of finely-dispersed soils. Bronfenbrener, L.E., et al. (1989, p.575-579, eng) **44-1717**
- Patterned ground. Krantz, W.B., et al. (1988, p.68-76, eng) **44-1764**
- Freeze-thaw effects on soil erosion. Edwards, L.M., et al. (1989, p.799-811, eng) **44-1816**
- Laboratory equipment for studies of frost susceptibility of soils. Stenberg, L., (1989, 29p, swe) **44-1822**
- Active patterned ground at sea level, Fourchu, Nova Scotia, Canada. Mooers, H.D., et al. (1989, p.425-432, eng) **44-2012**
- Salt redistribution during freezing of saline sand columns at constant rates. Baker, G.C., et al. (1989, p.1825-1831, eng) **44-2123**
- Soil freezing and soil water in sandy loam. Black, P.B., et al. (1989, p.2205-2210, eng) **44-2135**
- Laboratory method of determining the frost heave of soils. Ganeles, L.B., et al. (1989, p.41-46, rus) **44-2150**
- Heaving forces with regard to rheological properties of freezing ground. Kononov, A.A., (1989, p.96-101, rus) **44-2158**
- Cryogenic scanning electron microscopy in the Arctic and Antarctic. Lilly, M.R., et al. (1990, p.51-60, eng) **44-2206**
- Frozen ground formation by heat pipe and its application. Fukuda, M., et al. (1985, p.362-367, jpn) **44-2330**
- Control and preservation of agricultural soil freezing. Tsuchiya, F., (1985, p.378-382, jpn) **44-2331**
- Snow cover, freezing and thawing of soil in pine forests. Kotepanov, A., (1989, p.64-68, rus) **44-2352**
- Frost heave of over-consolidated soil. Yamamoto, H., et al. (1989, p.275-284, jpn) **44-2356**
- Methods of studying seasonally freezing and frozen ground. Orlov, V.O., ed. (1985, 76p, rus) **44-2362**
- Snow cover estimates through calculations of ground temperature and frost depth. Cherniadev, V.P., (1985, p.31-37, rus) **44-2368**
- Evaluating the effect of natural factors on ground freezing. Onishchenko, N.A., et al. (1985, p.37-41, rus) **44-2369**
- Thermal and moisture regime of seasonally freezing soils in Transbaikalia. Zhelezniak, I.I., (1985, p.48-50, rus) **44-2371**
- Water intake flow in unsaturated freezing soils. Gao, W.Y., et al. (1989, p.137-147, chi) **44-2408**
- Proceedings (1986, 666p, jpn) **44-2445**
- Production and preservation of frozen ground using winter cold. Tsuchiya, F., et al. (1986, p.413-416, jpn) **44-2481**
- Deformation of concrete trough caused by ground freezing. Suzuki, T., et al. (1986, p.471-476, jpn) **44-2487**
- Phase composition of water in freezing and frozen soils. Kondakov, V.V., et al. (1989, p.21-27, rus) **44-2517**
- Calculating moisture migration during seasonal freezing/thawing of soils. Anitskin, P.A., (1989, p.42-51, rus) **44-2518**
- Methods of producing a map of the seasonal freezing and thawing of soils. Vostokova, A.V., et al. (1989, p.50-55, rus) **44-2523**
- Proceedings (1987, 503p, jpn) **44-2526**
- Creation and conservation of frozen ground by the heat pipes. Sawada, S., et al. (1987, p.16-21, jpn) **44-2527**
- Low temperature storage by means of heat pipe, Pt 2. Ryokai, K., et al. (1987, p.22-26, jpn) **44-2528**
- Migration of salts in freezing soils. Romanov, V.P., et al. (1989, p.44-51, eng) **44-2592**
- Modeling soil freezing and thawing on a rangeland watershed. Flechinger, G.N., et al. (1989, p.1545-1554, eng) **44-2593**
- Microwave signatures of bare soil. Wegmüller, L., et al. (1989, p.307-316, eng) **44-2604**
- Night-frost modulation of near surface soil-water for concentration and thermal effects. Outcalt, S.F., et al. (1989, p.336-348, eng) **44-2637**
- Low temperature storage by heat pipes using natural cold. Pt 3. Tsuchiya, F., et al. (1988, p.525-529, jpn) **44-2721**
- How deep is the ground frozen. Yahagi, H., (1989, p.38-43, jpn) **44-2860**
- Artificial permafrost storage using heat pipes (Pt 4). Tsuchiya, F., et al. (1989, p.237-241, jpn) **44-2884**
- Computer estimation of freeze-thaw depths. Bailey, W.A., et al. (1989, 32p, eng) **44-2916**
- Proceedings (1990, 318p, eng) **44-2958**
- Frozen soil impacts on agricultural, range, and forest lands. Saxton, K.E., et al. (1990, p.1-3, eng) **44-2950**
- Soil freezing in a subarctic deciduous forest. Hinzman, L.D., et al. (1990, p.21-30, eng) **44-2962**
- Tillage and crop residue effects on soil frost depth. Rickerl, D.H., et al. (1990, p.1-15, eng) **44-2963**
- Artificial ground freezing for treatment of toxic wastes. Sullivan, J.M., Jr., et al. (1990, p.36-44, eng) **44-2964**
- Predicting unfrozen water content behavior of a soil. Black, P.B., et al. (1990, p.54-60, eng) **44-2966**
- Effects of freezing on aggregate stability of soils. Lechsch, G.A., et al. (1990, p.61-69, eng) **44-2967**
- Soil freezing and thawing simulation with the SHAW model. Flechinger, G.N., et al. (1990, p.77-86, eng) **44-2969**
- Simulating the freezing and thawing of arable land in Sweden. Lundin, L.C., (1990, p.87-98, eng) **44-2970**
- Modeling the effects of soil frost and snowmelt on runoff and erosion. Young, R.A., et al. (1990, p.99-107, eng) **44-2971**
- Conservation applications impacted by soil freeze thaw. Formanek, G.E., et al. (1990, p.108-112, eng) **44-2972**
- Heat and water flux in a diurnally freezing and thawing soil. Pikel, J.I., Jr., et al. (1990, p.113-119, eng) **44-2973**
- Effect of freezing on mass and heat transfer in porous media. Eldin, N.N., et al. (1990, p.177-185, eng) **44-2981**
- Solute redistribution during soil freezing. Van Looy, W.K.P., et al. (1990, p.186-194, eng) **44-2982**
- Modeling of solute rejection in freezing soils. Panday, S.M., et al. (1990, p.195-201, eng) **44-2983**
- Effects of freezing on sulfate salts in North Dakota soils and wetlands. Richardson, J.L., et al. (1990, p.212-215, eng) **44-2985**
- Tillage and residue management systems affect winter soil temperatures. Cullum, R.F., et al. (1990, p.239-246, eng) **44-2990**
- Impact of frozen soil on prairie hydrology. Granger, R.J., et al. (1990, p.247-256, eng) **44-2991**
- Comparison of three methods for measuring depth of soil freezing. Hanson, C.L., et al. (1990, p.257-262, eng) **44-2992**
- Soil water and solutes in soils after freezing. Hofmann, L.L., et al. (1990, p.263-270, eng) **44-2993**

- Field and laboratory techniques for frozen and thawing soil. McCool, D.K., et al. [1990, p.271-278, eng] **44-2994**
- Soil structure and frost depth as affected by soil compaction. Voorhees, W.B., et al. [1990, p.295-303, eng] **44-2998**
- State of water in freezing soil. Black, P.B., [1989, 7p., eng] **44-3014**
- Frost heaving of saturated soil under constant confining stress. Ryokai, K., et al. [1980, p.27-36, jpn] **44-3085**
- Experimental study of uniaxial compressive strength of frozen sand. Takashi, T., et al. [1980, p.77-88, jpn] **44-3086**
- Rheology in soil engineering. Part 5. Rheology of frozen ground. Kinoshita, S., et al. [1981, p.83-90, jpn] **44-3087**
- Compressive strength of frozen clay. Takashi, T., et al. [1981, p.83-93, jpn] **44-3088**
- Mechanical properties of artificially frozen soils. Akagawa, S., et al. [1982, p.7-17, eng] **44-3090**
- Relation between frost heave and specimen length. Akagawa, S., [1983, 6p., eng] **44-3091**
- Effect of salinity on strength and creep of frozen ground. C. ita, N., et al. [1983, 27p., jpn] **44-3092**
- Ice segregation and water migration in frozen ground. Takashi, T., et al. [1983, p.735-738, jpn] **44-3093**
- Soil freezing by a step temperature drop in the open system under overburden pressure. Horiguchi, K., et al. [1989, p.163-171, eng] **44-3099**
- Ice lens growth in partially frozen saturated soil. Ishizaki, T., et al. [1986, p.13-21, jpn] **44-3186**
- Freeze thaw effect on soil strength. Ogata, N., et al. [1986, 29p., jpn] **44-3187**
- Ice lens growth in partially frozen saturated soil. Ishizaki, T., et al. [1987, p.69-79, jpn] **44-3189**
- Mechanical properties of frozen cohesive soils. Kataoka, T., et al. [1987, 28p., jpn] **44-3190**
- Frost heave and soil constants. Kataoka, T., et al. [1987, 30p., jpn] **44-3191**
- Food preservation in frozen ground. Ryokai, K., [1987, p.88-92, jpn] **44-3192**
- Soil pressure from frost heaving. Yamamoto, H., et al. [1988, 2p., jpn] **44-3220**
- External pressure on cylinder of frozen ground. Izuta, H., et al. [1989, 2p., jpn] **44-3221**
- Soil freezing of agricultural lands in Hokkaido. Tsuchiya, F., [1989, p.104-114, eng] **44-3222**
- Experimental study on frost heave under tri-axial stress. Yamamoto, H., et al. [1989, 2p., jpn] **44-3223**
- On the front-tracking scheme for phase-change problems. Askar, H.G., et al. [1989, p.507-513, eng] **44-3248**
- Soil freezing in the taiga zone of the European USSR. Rubtsov, M.V., et al. [1989, p.116-122, eng] **44-3252**
- Effect of salinity of frozen soils on thermal regime of bases of underground pipelines. Suleimanov, V.A., et al. [1990, p.156-159, eng] **44-3256**
- Experimental study of the temperature dependence of the effective heat capacity of peat. Gamaunov, N.I., et al. [1987, p.111-115, eng] **44-3259**
- Steady growth of ice layer in freezing soils. Nakano, Y., [1990, p.207-226, eng] **44-3295**
- Agricultural engineering soil mechanics. McKyes, E., [1989, 292p. (Pertinent p.244-258), eng] **44-3325**
- Influence of freezing-thawing on undrained shear characteristics of sand. Ogawa, S., et al. [1989, p.49-54, jpn] **44-3440**
- Frost heave prevention in volcanic ash soil by quicklime. Ishida, H., [1989, p.15-20, jpn] **44-3441**
- Influence of freezing mode on frost heave characteristics. Konrad, J.M., [1988, p.161-175, eng] **44-3507**
- Electrical conductance measurement of soil frost. Hayhoe, H.N., et al. [1988, p.195-200, eng] **44-3510**
- Experiment on improving frost heave test methods. Mizushima, T., et al. [1987, p.129-134, jpn] **44-3516**
- Deep penetration of permafrost through saturated ground. Kelly, R.J., et al. [1990, p.9-27, eng] **44-3537**
- Unfrozen water as a function of void ratio in a clayey silt. Konrad, J.M., [1990, p.49-55, eng] **44-3539**
- Transport of water due to a temperature gradient in unsaturated frozen clay. Nakano, Y., et al. [1990, p.57-75, eng] **44-3540**
- Congress of soil scientists, 8th, Novosibirsk, 1989. [1989, 299p. (Pertinent p.119-123), rus] **44-3551**
- Congress of soil scientists, 8th, Novosibirsk, 1989. [1989, 290p., rus] **44-3552**
- Physical chemical processes in soil cryogenesis. Voronin, A.D., et al. [1989, p.264-268, rus] **44-3557**
- Extremal estimates in the theory of freezing of filtering soils. Kornev, G.K., [1990, p.569-574, eng] **44-3580**
- Seasonally frozen ground and frost heaving in Yumenzen. Yue, H.S., et al. [1989, p.372-382, chi] **44-3614**
- Observations and significance of internal pressures in freezing soil. Smith, M.W., et al. [1990, p.75-81, eng] **44-3647**
- X-ray photography of the frozen fringe of freezing soil. Akagawa, S., [1990, 6p., eng] **44-3756**
- Hydrophysical studies of soils and snow cover. Kaluzhnyi, I.L., et al. [1989, p.205-220, rus] **44-3912**
- Method for controlling stationary frost heaving. Akagawa, S., [1990, p.1-8, eng] **44-3948**
- Unfrozen water content and hydraulic conductivity of frozen soil. Black, P.B., [1990, 7p., eng] **44-3987**
- Comparison of four volatile organic compounds in frozen and unfrozen silt. Taylor, S., et al. [1990, 9p., eng] **44-3991**
- Simulation of the effects of frost on the performance of roads subjected to salt deicing. Padilla, F., et al. [1989, p.257-261, fre] **44-4024**
- Case study of potential causes of frost heave. Henry, K.S., [1990, 35p., eng] **44-4060**
- Determination of thermal conductivity in freezing moist soils. Jacobs, H.R., et al. [1990, p.355-361, eng] **44-4243**
- Cooling device for artificial ground freezing. Kharitonov, A.N., et al. [1990, p.168-174, rus] **44-4316**
- Field frost heave measurement and prediction during periods of seasonal frost. Hayhoe, H.N., et al. [1990, p.393-397, eng] **44-4412**
- Numerical modelling of frost and thaw penetration. Sheng, D.C., [1990, 103p., eng] **44-4423**
- Soil mapping
- Engineering geological mapping of permafrost peat. Kashperuk, P.I., et al. [1989, p.83-89, rus] **44-3707**
- Mapping of ice content and layers of permafrost. Vasil'chuk, I.U.K., et al. [1989, p.89-96, rus] **44-3708**
- Structural geomorphological mapping for engineering geology. Kostenko, N.P., et al. [1989, p.96-103, rus] **44-3709**
- Soil mechanics
- Compaction characteristics in thawing sandy soil under dynamic loads. Inozemtsev, V.K., [1985, p.114-119, rus] **44-208**
- Mechanisms of change in clayey soils during vibration. Kuterin, V.N., [1989, 141p., rus] **44-1035**
- Experimental determination of pore pressure development in a thawing soil. Axelsson, K., et al. [1988, p.489-495, eng] **44-1166**
- Handbook of soil mechanics, Vol.3. Kézdi, Á., et al. [1988, 363p., eng] **44-1477**
- Measurement of *in-situ* pore pressures. Sellers, J.B., [1989, p.40-44, eng] **44-1641**
- Heaving forces with regard to rheological properties of freezing ground. Kononov, A.A., [1989, p.96-101, rus] **44-2158**
- Drumlin physical dimensions as a function of subglacial processes. Piotrowski, J.A., [1989, p.429-441, eng] **44-2279**
- Building structures on swelling clayey soils. Sorochan, E.A., [1989, 309p., rus] **44-2404**
- Salt redistribution and heave of saline soil during cooling. Chen, X.B., et al. [1989, p.231-238, chi] **44-2418**
- Artificial ground freezing and soil stabilization. Raad, L., [1988, 92p., eng] **44-2744**
- Computer simulation of two-dimensional frost heaving in soils. Hovan, J.M., [1989, 79p., eng] **44-2806**
- Ice lens orientation around a chilled buried pipe. Smith, S.L., et al. [1990, p.83-87, eng] **44-3647**
- Compressive strength and deformation in fine-grained frozen soils. Joshi, R.C., et al. [1990, p.317-325, eng] **44-3677**
- See *also*: Frozen ground mechanics
- Soil microbiology
- Microflora of tundra soils. Parinkina, O.M., [1989, 159p., rus] **44-52**
- Characteristics of Wilkes Land soils. Heatwole, H., et al. [1987, p.225-234, eng] **44-63**
- Microbiological characteristics in cryolithozone sedimentary rocks. Gilichinski, D.A., et al. [1989, p.103-115, rus] **44-162**
- Permafrost, soils and microorganisms. Zviagintsev, D.G., et al. [1989, p.269-273, rus] **44-3558**
- Soil moisture
- See *also*: Soil water
- Soil patterns
- De Geer moraines and basal flow of ice. Laaksonen, K., [1989, p.301-328, fin] **44-3164**
- Soil physics
- Modeling the transport of chromium (VI) in soil columns. Selim, H.M., et al. [1989, p.996-1004, eng] **44-67**
- Comparison of two methods of calculating soil freezing depth. Gel'fan, A.N., [1989, p.98-104, rus] **44-104**
- Effect of a cut layer of frozen peat deposits on its freeze-thaw process. Zhuravlev, A.V., et al. [1989, p.23-26, rus] **44-1400**
- In situ* permeability measurements. Moulton, L.K., [1989, p.63-73, eng] **44-1643**
- Simple and economical thermal conductivity measurement system. Atkins, R.T., [1989, p.108-116, eng] **44-1648**
- Hydrothermal problems of frozen soils. Savvinov, D.D., ed. [1988, 126p., rus] **44-1958**
- Effect of fires on some hydrophysical properties of soils. Tarabukina, V.G., et al. [1988, p.86-91, rus] **44-1966**
- Forecasting multi-year variations in the thermal regime of soils. Skriabin, P.N., et al. [1988, p.113-121, rus] **44-1969**
- Engineering-geocryological safeguarding of the building of structures. Mel'nikov, V.P., ed. [1989, 135p., rus] **44-2144**
- Laboratory method of determining the frost heave of soils. Ganeles, I.B., et al. [1989, p.41-46, rus] **44-2150**
- Disintegration of frozen and thawed sandy and clayey soils. Shirman, V.G., et al. [1989, p.962-964, rus] **44-2248**
- Methods of studying seasonally freezing and frozen ground. Orlov, V.O., ed. [1985, 76p., rus] **44-2362**
- Migration process of moisture and heaving in peat soils. Gamaunov, N.I., et al. [1985, p.3-8, rus] **44-2363**
- Low-temperature effects on systems for composting explosives-contaminated soils. Ayorinde, O.A., et al. [1989, 18p., eng] **44-2847**
- Influence of management practices on snowmelt runoff. Chanasyk, D.S., et al. [1990, p.120-124, eng] **44-2974**
- Agrophysical properties of cryogenic soils. Dugarov, V.I., et al. [1990, 255p., rus] **44-4288**
- See *also*: Frozen ground physics; Permafrost physics
- Soil pollution
- Trace metal pollution from waste disposal site in Pangnirtung. Haertling, J.W., [1989, p.57-61, eng] **44-491**
- Entry of pollutants into the snow cover and soils of urban lawns. Lepneva, O.M., et al. [1988, p.16-20, eng] **44-621**
- Comments on "Modeling adsorption-desorption kinetics of pesticides in a soil suspension". Leggett, D.C., [1989, p.231, eng] **44-1037**
- Effects of freezing on toxicity of contaminated sediments. Schuytema, G.S., et al. [1989, p.883-891, eng] **44-1205**
- Well casings for monitoring trace organics in ground water. Parker, L.V., et al. [1989, 29p., eng] **44-1223**
- Retention of elements by soils. Buchter, B., et al. [1989, p.370-379, eng] **44-1732**
- Characterization of snowmelt from a dump site. Pinard, D., et al. [1989, p.211-215, fre] **44-1763**
- Analytical methods for determining nitroguanidine in soil and water. Walsh, M.E., [1989, 27p., eng] **44-1785**
- Chromatographic determination of nitroaromatic residues in soil. Jenkins, T.F., et al. [1989, p.890-899, eng] **44-2345**
- Artificial ground freezing for treatment of toxic wastes. Sullivan, J.M., Jr., et al. [1990, p.36-44, eng] **44-2964**
- Fate and transport of contaminants in frozen soils. Ayorinde, O.A., et al. [1990, p.202-211, eng] **44-2984**
- Environmental transformation of nitroaromatics and nitramines. Walsh, M.E., [1990, 21p., eng] **44-3178**
- Analytical methods for detecting military-unique compounds. Jenkins, T.F., et al. [1989, p.13-14, eng] **44-3747**
- Surface changes in well casings exposed to organic pollutants. Taylor, S., et al. [1990, 14p., eng] **44-3755**
- Determination of explosive residues in soil. Part 3. Bauer, C.F., et al. [1989, 89p., eng] **44-3757**
- Comparison of four volatile organic compounds in frozen and unfrozen silt. Taylor, S., et al. [1990, 9p., eng] **44-3991**
- Soil pressure
- Ground freezing around chilled gas pipelines. Greene, D.P., et al. [1989, p.555-557, eng] **44-933**
- Time dependent response of frozen soils subject to triaxial stress. Hampton, C.N., et al. [1989, 5 refs., eng] **44-934**
- Thermomolecular pressure in surface melting: motivation for frost heave. Dash, J.G., [1989, p.1591-1593, eng] **44-1372**
- Soil pressure from frost heaving. Yamamoto, H., et al. [1988, 2p., jpn] **44-3220**
- External pressure on cylinder of frozen ground. Izuta, H., et al. [1989, 2p., jpn] **44-3221**
- Observations and significance of internal pressures in freezing soil. Smith, M.W., et al. [1990, p.75-81, eng] **44-3646**
- Soil profiles
- Radar study of active layer thicknesses in wet tundra in AK. Doolittle, J.A., et al. [1990, p.175-182, eng] **44-4050**
- Piezocene calibration and accuracy for soil soil investigation. Mulabdic, M., et al. [1990, 62p., eng] **44-4461**
- Soil settling
- See *also*: Settlement (structural)
- Soil stabilization
- Fly ash for soil stabilization and canal lining. Jones, C.W., [1986, 41p., eng] **44-1207**
- Artificial ground freezing and soil stabilization. Raad, L., [1988, 92p., eng] **44-2744**
- Settling and consolidation of a thawing clay silt at Kangiqsualujuaq. Leroueil, S., et al. [1990, p.309-316, fre] **44-3676**
- Soil strength
- Model simulations of Winchendon freeze-thaw field data. Edgers, L., et al. [1988, p.65-72, eng] **44-913**
- Field evaluation of criteria for frost susceptibility of soils. Edgers, L., et al. [1988, p.73-85, eng] **44-914**
- Freeze-thaw-induced variability of soil shear strength. Kok, H., [1989, 200p., eng] **44-1016**
- Experimental determination of pore pressure development in a thawing soil. Axelsson, K., et al. [1988, p.489-495, eng] **44-1166**
- Shear strength of frozen saline soils. Brovka, G.P., et al. [1989, p.30-33, rus] **44-1382**

Soil strength (cont.)

- In situ* stress measurements. Selig, E.T., 1989, p.162-169, eng. **44-1654**
- Foundation performance of gravity base structures. McCarron, W.O., 1990, p.1-8, eng. **44-2200**
- Modelling the behaviour of an oil saturated sand. Evgin, E., et al., 1990, p.31-37, eng. **44-2204**
- Nonlinear response of undrained soil under unsymmetric loading. Prasad, K.S.R., et al., 1990, p.67-74, eng. **44-2208**
- Response of a Beaufort Sea clay to monotonic and cyclic loading. McCarron, W.O., et al., 1990, p.329-336, eng. **44-2243**
- Variations in ice gouge parameters related to different seabed soil types. Ticken, E.J., et al., 1990, p.337-339, eng. **44-2244**
- Effect of freeze thaw activity on the soil physics. Benoit, G.R., et al., 1990, p.45-53, eng. **44-2965**
- Freeze thaw effects on soil strength. Kok, H., et al., 1990, p.70-76, eng. **44-2968**
- Hydraulic erosion resistance of thawing soil. Van Klaveren, R.W., et al., 1987, 29p., eng. **44-3931**
- Thawing soil strength measurements for predicting vehicle performance. Shoop, S.A., 1989, 18p., eng. **44-3933**

Soil structure

- Mathematical model of frost heave in granular materials. Piper, D., et al., 1989, p.569-570, eng. **44-939**
- Influence of freeze-thaw cycles on clay structures. Schababerle, R., et al., 1989, p.573-575, eng. **44-941**
- Forecasting the structural characteristics of soils. Busel, I.L., 1989, 245p., rus. **44-1753**
- Observations of patterned ground features in Alaska. Walters, J.C., 1989, p.93-106, eng. **44-1866**
- Facies model for deglaciation in an alpine valley. Pugin, A., 1989, p.235-248, eng. **44-2391**
- Simulating the freezing and thawing of arable land in Sweden. Lundin, L.C., 1990, p.87-98, eng. **44-2970**
- Effect of freeze-thaw cycles on soils. Chamberlain, E., et al., 1990, p.145-155, eng. **44-2977**
- Soil structure and frost depth as affected by soil compaction. Voorhees, W.B., et al., 1990, p.295-303, eng. **44-2998**
- Soil freezing by a step temperature drop in the open system under overburden pressure. Horiguchi, K., et al., 1989, p.163-171, eng. **44-3099**
- Observations on organic mounds on the North Shore of the Gulf of St. Lawrence, Quebec. Dionne, J.C., et al., 1988, p.289-301, fre. **44-3528**
- Ground ice, Herschel I., Yukon Territory. Pollard, W.H., 1990, p.23-30, eng. **44-3639**
- Soil surveys**
- Forecasting the structural characteristics of soils. Busel, I.L., 1989, 245p., rus. **44-1753**
- Oases of the North. Fominykh, L.A., et al., 1988, 170p., rus. **44-1876**
- Classification and diagnostics of cryogenic soils in Yakutia. Elovskaja, L.G., 1987, 172p., rus. **44-3492**

Soil temperature

- Guide to forecasting the thermal regime of soils in Yakutia. Fel'dman, G.M., et al., 1988, 240p., rus. **44-193**
- Temperature regime of frozen soils on burns in northern Yakutia. Stepanov, G.M., 1988, p.76-82, eng. **44-222**
- Groundwater regime and runoff in forests and swamps in Siberia. Konstantinov, V.D., 1986, p.10-16, eng. **44-316**
- Methane flux time series for tundra environments. Whalen, S.C., et al., 1988, p.399-409, eng. **44-374**
- Infiltration into a frozen heavy clay soil. Thunholm, B., et al., 1989, p.153-166, eng. **44-1322**
- Thermal regime of the soils near the northern Yenisei. Skriabin, P.N., et al., 1989, 175p., rus. **44-1854**
- Oases of the North. Fominykh, L.A., et al., 1988, 170p., rus. **44-1876**
- Forecasting multi-year variations in the thermal regime of soils. Skriabin, P.N., et al., 1988, p.113-121, rus. **44-1969**
- Recommendations for selecting apparatus for thermometric systems. Pakulin, V.A., 1985, p.68-76, rus. **44-2376**
- Permafrost-depth calculation by the ground temperature method. Yuan, X.H., 1989, p.239-248, chi. **44-2419**
- Microwave emission of snow-covered and snow-free terrain from satellite measurements. Aschbacher, J., et al., 1989, p.289-295, eng. **44-2602**
- Decrease of ground surface temperature from seepage of snowmelt. Fukami, H., et al., 1989, p.320-324, jpn. **44-2896**
- Cryic thermal regime of soils. Smith, C.A.S., 1990, p.11-20, eng. **44-2961**
- Soil freezing in a subarctic deciduous forest. Hinzman, I.D., et al., 1990, p.21-30, eng. **44-2962**
- Soil freezing and thawing simulation with the SHAW model. Flerchinger, G.N., et al., 1990, p.77-86, eng. **44-2969**
- Heat and water flux in a diurnally freezing and thawing soil. Pikul, J.L., Jr., et al., 1990, p.113-119, eng. **44-2973**
- Effects of tillage and residue on frozen soils. Bidlake, W.R., et al., 1990, p.231-238, eng. **44-2989**

Tillage and residue management systems affect winter soil temperatures. Cullum, R.F., et al., 1990, p.239-246, eng. **44-2990**

Vegetation effects on soil thermal regimes. Hayhoe, H.N., et al., 1990, p.61-71, eng. **44-3004**

Basic parameters of continentality in soil climate of lowland plains of the USSR. Dimo, V.N., et al., 1989, p.98-105, eng. **44-3251**

Effect of salinity of frozen soils on thermal regime of bases of underground pipelines. Suleimanov, V.A., et al., 1990, p.156-159, eng. **44-3256**

Ground temperatures and moisture changes, Canadian Cordillera. Harris, S.A., 1990, p.151-157, eng. **44-3657**

Soil latent heat as a filter of the climate signal in permafrost. Riseborough, D.W., 1990, p.199-205, eng. **44-3663**

Permafrost thermal regime in northern Quebec. Lévesque, R., et al., 1990, p.207-213, fre. **44-3664**

Surface energy balance and ground heat flux in organic permafrost. Halliwell, D.H., et al., 1990, p.223-229, eng. **44-3666**

Soil and pipeline temperatures in discontinuous permafrost. Burgess, M.M., et al., 1990, p.291-297, eng. **44-3674**

Performance of the first insulated roadway on permafrost in Alaska. Esch, D.C., 1990, p.403-408, eng. **44-3688**

Snow and ground thermal regimes in a subarctic woodland. Desrochers, D.T., 1989, p.172-183, eng. **44-4010**

Field frost heave measurement and prediction during periods of seasonal frost. Hayhoe, H.N., et al., 1990, p.393-397, eng. **44-4412**

Moisture transfer and ice accumulation in dispersed soils. Lanitskii, P.A., 1990, p.44-50, rus. **44-4533**

See *also*: Frozen ground temperature

Soil tests

Structural strength of frozen soils during thawing. Vodolazkin, V.M., et al., 1990, p.207-209, eng. **44-3417**

Thawing soil strength measurements for predicting vehicle performance. Shoop, S.A., 1989, 18p., eng. **44-3933**

Method for controlling stationary frost heaving. Akagawa, S., 1990, p.1-8, eng. **44-3948**

Soil texture

Effects of freezing on aggregate stability of soils. Lehrsch, G.A., et al., 1990, p.61-69, eng. **44-2967**

Soil water and solutes in soils after freezing. Hofmann, L.L., et al., 1990, p.263-270, eng. **44-2993**

Earthwork construction. Waidelich, W.C., 1990, p.25-48, eng. **44-4267**

Soil thawing

See *also*: Ground thawing

Soil trafficability

Vehicle mobility on thawing soils. Shoop, S.A., 1989, 16p., eng. **44-1481**

See *also*: Patterned ground

Soil water

Resident time of meltwater in different zones of small basins. Bengtsson, L., 1988, p.131-136, eng. **44-242**

Modelling extreme effective precipitation. Bergstrom, S., et al., 1988, p.191-197, eng. **44-248**

Snow management increases alfalfa yields. Waddington, J., et al., 1989, p.134-137, eng. **44-515**

Mapping freeze-thaw boundaries with SMMR data. Zuerndorfer, B.W., et al., 1989, 28p., eng. **44-713**

General report on case histories. Gallavresi, F., 1989, p.509-511, eng. **44-927**

Estimating snow moisture reserve and soil humidity from cosmic rays. Avdiushin, S.I., et al., 1988, p.163-165, eng. **44-1105**

Water vapor transfer during freezing of peat moisture. Gamajunov, N.I., et al., 1989, p.19-25, rus. **44-1383**

Monitoring pavement performance in seasonal frost areas. Berg, R.L., 1989, p.10-19, eng. **44-1638**

Measurement of *in-situ* pore pressures. Sellers, J.B., 1989, p.40-44, eng. **44-1641**

Soil water content during freezing and thawing conditions. Nieber, J.L., et al., 1989, p.45-62, eng. **44-1642**

Temperature and thaw depth monitoring of pavement structures. Esch, D.C., 1989, p.78-86, eng. **44-1645**

Data acquisition: first the FERF then the world. Knuth, K.V., 1989, p.136-138, eng. **44-1651**

Replenishment of soil moisture reserves of agricultural fields. Shutov, V.A., et al., 1989, p.64-71, eng. **44-1837**

Motive forces of moisture migration in cryogenic deformation. Lebedenko, I.P., 1988, p.1-10, eng. **44-1842**

Moisture and temperature dynamics of frozen soils. Savvinov, G.N., 1988, p.49-59, rus. **44-1964**

Thermal conductivity coefficient of frozen chernozem-meadow soils. Mandarov, A.A., et al., 1988, p.76-86, rus. **44-1965**

Effect of fires on some hydrophysical properties of soils. Tarabukina, V.G., et al., 1988, p.86-91, rus. **44-1966**

Salt redistribution during freezing of saline sand columns at constant rates. Bakci, G.C., et al., 1989, p.1825-1831, eng. **44-2123**

Soil freezing and soil water in sandy loam. Black, P.B., et al., 1989, p.2205-2210, eng. **44-2135**

Determining the phase composition of moisture in frozen disperse systems. Podenko, L.S., et al., 1989, p.52-56, rus. **44-2152**

Snow cover, freezing and thawing of soil in pine forests. Korepanov, A.A., 1989, p.64-68, rus. **44-2352**

Determining the volume of unfrozen moisture by centrifugal separation. Sheveleva, N.N., 1985, p.21-26, rus. **44-2366**

Thermal and moisture regime of seasonally freezing soils in Transbaikalia. Zhelezniak, I.I., 1985, p.48-50, rus. **44-2371**

Frozen peat soil drainage in the Baikal-Amur Main line zone. Aleksei, I.S., 1987, p.8-13, rus. **44-2614**

Hydraulic conductivity and unfrozen water content of frozen silt. Black, P.B., et al., 1990, p.323-329, eng. **44-2646**

Advisability of using drying drums for reclamation of frozen soils. D'akov, P.L., et al., 1989, p.53-55, rus. **44-2647**

Resilient properties of Arkansas subgrades. Final report. Elliott, R.P., et al., 1988, 116p., eng. **44-2814**

Proceedings. 1990, 318p., eng. **44-2958**

Effect of freeze thaw activity on the soil physics. Benoit, G.R., et al., 1990, p.45-53, eng. **44-2965**

Predicting unfrozen water content behavior of a soil. Black, P.B., et al., 1990, p.54-60, eng. **44-2966**

Freeze thaw effects on soil strength. Kok, H., et al., 1990, p.70-76, eng. **44-2968**

Soil freezing and thawing simulation with the SHAW model. Flerchinger, G.N., et al., 1990, p.77-86, eng. **44-2969**

Modeling the effects of soil frost and snowmelt on runoff and erosion. Young, R.A., et al., 1990, p.99-107, eng. **44-2971**

Conservation applications impacted by soil freeze thaw. Formanek, G.E., et al., 1990, p.108-112, eng. **44-2972**

Heat and water flux in a diurnally freezing and thawing soil. Pikul, J.L., Jr., et al., 1990, p.113-119, eng. **44-2973**

Influence of management practices on snowmelt runoff. Chanasyk, D.S., et al., 1990, p.120-124, eng. **44-2974**

Infiltration into a seasonally frozen clay soil. Thunholm, B., et al., 1990, p.156-160, eng. **44-2978**

Snowmelt infiltration into completely frozen subsoiled soils. Gray, D.M., et al., 1990, p.161-170, eng. **44-2979**

Effect of freezing on mass and heat transfer in porous media. Eldin, N.N., et al., 1990, p.177-185, eng. **44-2981**

Solute redistribution during soil freezing. Van Loon, W.K.P., et al., 1990, p.186-194, eng. **44-2982**

Frozen soil impacts, research needs. Papendick, R.I., et al., 1990, p.220-223, eng. **44-2987**

Comparison of three methods for measuring depth of soil freezing. Hanson, C.L., et al., 1990, p.257-262, eng. **44-2992**

Field and laboratory techniques for frozen and thawing soil. McCool, D.K., et al., 1990, p.271-278, eng. **44-2994**

Soil thaw as influenced by small grain residue color. Sharratt, B.S., et al., 1990, p.290-294, eng. **44-2997**

Hydrologic effects of climate change in the Delaware River basin. McCabe, G.J., Jr., et al., 1989, p.1231-1242, eng. **44-3114**

Measurements of dielectric properties of frozen soils. Araki, T., et al., 1989, p.27-40, jpn. **44-3124**

Infiltration of water into soil during melting of snow. Gusev, E.M., 1990, p.108-120, eng. **44-3247**

Pore water salinities of Richards I. coastal sediments. Wolfe, S.A., et al., 1990, p.51-59, eng. **44-3643**

Ground temperatures and moisture changes, Canadian Cordillera. Harris, S.A., 1990, p.151-157, eng. **44-3657**

Surface energy balance and ground heat flux in organic permafrost. Halliwell, D.H., et al., 1990, p.223-229, eng. **44-3666**

Water and ice content in the active layer. Fortier, R., et al., 1990, p.263-269, fre. **44-3671**

New approach for sizing rapid infiltration systems (discussion and closure). Reed, S.C., et al., 1989, p.879-882, eng. **44-3746**

Moisture transfer and ice accumulation in dispersed soils. Lanitskii, P.A., 1990, p.44-50, rus. **44-4533**

See *also*: Ground water, Unfrozen water, content

Soil water migration

Comparison of two methods of calculating soil freezing depth. Gelfand, A.N., 1989, p.98-104, rus. **44-104**

Water balance formation in intensive water transfer zones. Vsevolozhskii, V.A., et al., 1989, p.13-23, rus. **44-144**

- Water regime of sandy grounds in a seasonally thawing layer.** Boitsov, A.V., et al. [1989, p.27-38, rus] **44-146**
- Moisture content distribution and frost heave deformation in clay soils.** Andreeva, N.G., et al. [1985, p.120-125, rus] **44-209**
- Heat and moisture transport in thawing of frozen soil.** Anitskii, P.A., [1987, p.136-144, eng] **44-302**
- Simulation of soil frost depth and effect on runoff.** Vehviläinen, B., et al. [1989, p.9-24, eng] **44-376**
- Geotextiles and a new way to use them.** Henry, K., [1988, p.214-222, eng] **44-420**
- Secondary frost heave in freezing soils.** Fowler, A.C., [1989, p.991-1008, eng] **44-531**
- Ground freezing around chilled gas pipelines.** Greene, D.P., et al. [1989, p.555-557, eng] **44-933**
- Influence of freeze-thaw cycles on clay structures.** Schababerle, R., et al. [1989, p.573-575, eng] **44-941**
- Soil suction monitoring for roads and airfields.** Fredlund, D.G., [1989, p.24-39, eng] **44-1640**
- Frost heave of over-consolidated soil.** Yamamoto, H., et al. [1989, p.275-284, jpn] **44-2356**
- Phase composition of water in freezing and frozen soils.** Kondakov, V.V., et al. [1989, p.21-27, rus] **44-2517**
- Calculating moisture migration during seasonal freezing-thawing of soils.** Anitskii, P.A., [1989, p.42-51, rus] **44-2518**
- Soil freezing in a subarctic deciduous forest.** Hinzman, L.D., et al. [1990, p.21-30, eng] **44-2962**
- Simulating the freezing and thawing of arable land in Sweden.** Lundin, L.C., [1990, p.87-98, eng] **44-2970**
- Fate and transport of contaminants in frozen soils.** Ayorinde, O.A., et al. [1990, p.202-211, eng] **44-2984**
- Impact of frozen soil on prairie hydrology.** Granger, R.J., et al. [1990, p.247-256, eng] **44-2991**
- Soil water and solutes in soils after freezing.** Hofmann, L.L., et al. [1990, p.263-270, eng] **44-2993**
- State of water in freezing soil.** Black, P.B., [1989, 7p., eng] **44-3014**
- Ice segregation and water migration in frozen ground.** Takashi, T., et al. [1983, p.735-738, jpn] **44-3093**
- Ice lens growth in partially frozen saturated soil.** Ishizaki, T., et al. [1986, p.13-21, jpn] **44-3186**
- Movement of water, heat, and solutes in frost susceptible soils.** Padilla, F., et al. [1990, p.43-49, eng] **44-3642**
- Diffusivity of a glacial-outwash aquifer by the floodwave-response technique.** Reynolds, R.J., [1987, p.290-299, eng] **44-3879**
- Hydrophysical studies of soils and snow cover.** Kaliuzhnyi, I.L., et al. [1989, p.205-220, rus] **44-3912**
- Unfrozen water content and hydraulic conductivity of frozen soil.** Black, P.B., [1990, 7p., eng] **44-3987**
- Permeability of frozen soils under trees.** Rybakova, N.A., [1990, p.106-112, eng] **44-4057**
- Soils**
- Effect of specimen size on the bending strength of alluvium reinforced ice.** Nixon, W.A., et al. [1990, p.217-222, eng] **44-2226**
- See also: Clay soils; Chernozem; Cryogenic soils; Desert soils; Fines; Forest soils; Frozen ground; Meadow soils; Mountain soils; Noncohesive soils; Organic soils; Podsol; Saline soils; Subgrade soils**
- Solar activity**
- Newfoundland ice extent and the solar cycle from 1860 to 1988.** Hill, B.T., et al. [1990, p.5385-5394, eng] **44-3280**
- Solar radiation**
- Empirical functions for atmospheric aerosol size distribution.** Ram, M., et al. [1989, p.351-353, eng] **44-455**
- Heating of dust particles enclosed in icy material.** Kömle, N.J., et al. [1989, p.193-195, eng] **44-525**
- Effects of solar radiation on the formation of weak wet snow.** Izumi, K., [1989, p.120-123, eng] **44-559**
- Multiple reflections across a linear discontinuity in surface albedo.** Barker, H.W., et al. [1989, p.203-214, eng] **44-759**
- Snow cover model for avalanche forecasting.** Brun, E., et al. [1989, p.333-342, eng] **44-1894**
- Zonal distribution of short wave diffuse radiation over snow cover.** Beschastnov, S.P., et al. [1989, p.52-57, rus] **44-1937**
- Effect of slope exposure on snow cover distribution in the mountains.** Severskii, S.I., [1989, p.152-162, rus] **44-3243**
- Anthropogenic aerosols in a haze and snow coupled model.** Blanchet, J.P., et al. [1984, p.269-272, eng] **44-3435**
- Radiational climate in cirques.** Bai, Z.Y., et al. [1989, p.336-349, chi] **44-3611**
- Satellite data for calculating longwave radiation budgets.** Gupta, S.K., et al. [1989, p.291-294, eng] **44-4043**
- Geophysical processes in the polar cusp.** Raspopov, O.M., [1990, p.44-47, eng] **44-4065**
- Aurora-related studies in Finland 1988.** Sucksdorff, C., [1990, p.47-52, eng] **44-4066**
- Milankovitch solar radiation variations and sea ice thickness.** Ledley, T.S., [1990, p.144-147, eng] **44-4181**
- Shortwave radiation and open water in models of sea ice decay.** Perovich, D.K., et al. [1990, p.242-246, eng] **44-4202**
- Solar visible spectrum**
- See also: Sunlight**
- Solid liquid interfaces**
- See also: Liquid solid interfaces**
- Solid phases**
- High-density structures and phase transition in an ionic model of H₂O ice.** Demontis, P., et al. [1989, p.2716-2718, eng] **44-288**
- Solidification blockage of laminar flow at the 90 degree bend of a pipe.** Chida, K., et al. [1989, p.83-92, eng] **44-690**
- Analysis of turbulent flow freezing transients.** Thomason, S.B., et al. [1989, p.368-377, eng] **44-1009**
- Self-similar solution of the thawing soil problem.** Maksimov, A.M., et al. [1989, p.914-919, eng] **44-1518**
- Thermal coefficients of a material through a two-phase Stefan problem.** Stampella, M.B., et al. [1989, p.1407-1419, eng] **44-2060**
- Simulation of planar instabilities during solidification.** Sullivan, J.M., Jr., et al. [1987, p.81-111, eng] **44-2280**
- Some remarks on the regularization of supercooled one-phase Stefan problems in one dimension.** Fasano, A., et al. [1990, p.153-168, eng] **44-3309**
- Chemical equilibrium model of brines below 25 °C.** Spencer, R.J., et al. [1990, p.575-590, eng] **44-3363**
- Melting behavior of fluid inclusions in halite crystals.** Davis, D.W., et al. [1990, p.591-601, eng] **44-3364**
- Liquid-absent aqueous fluid inclusions and phase equilibria in the system CaCl₂-NaCl-H₂O.** Schiffries, C.M., [1990, p.611-619, eng] **44-3366**
- Type I isotherms for N₂ adsorption on vapor deposited amorphous solid water.** Pletzer, R., et al. [1989, p.5207-5208, eng] **44-3620**
- Solids**
- Thermal coefficients of a material through a two-phase Stefan problem.** Stampella, M.B., et al. [1989, p.1407-1419, eng] **44-2060**
- Prediction of freezing rates in solids of arbitrary shape.** Cleland, D.J., et al. [1984, p.6-13, eng] **44-3046**
- Shape of bodies formed during solidification of fluid flow.** Kornev, K.G., et al. [1990, p.773-778, eng] **44-3112**
- Surface melting.** Frenken, J.W.M., [1990, p.2-7, eng] **44-3574**
- Solifluction**
- Periglacial forms and morphodynamics in southern Jameson Land.** Schunke, E., [1986, 142p., ger] **44-484**
- Stratified slope deposits in the Central Andes of Peru.** Francou, B., [1988, p.47-76, fre] **44-691**
- Cryopediments—important landforms in contemporary and Pleistocene permafrost environments.** Czudek, T., [1988, p.161-173, ger] **44-1028**
- Preliminary investigation of solifluction macrofabrics.** Nelson, F.E., [1985, p.23-33, eng] **44-2283**
- Ground ice in the deposits on slopes of Tien Shan and Pamirs.** Ermolin, E.D., [1989, p.3-13, rus] **44-3229**
- Solubility**
- Surface activity of anti-icing additives.** Urianskaia, N.I., et al. [1989, p.162-167, eng] **44-1886**
- Effects of freezing on sulfate salts in North Dakota soils and wetlands.** Richardson, J.L., et al. [1990, p.212-215, eng] **44-2985**
- Chemical equilibrium model of brines below 25 °C.** Spencer, R.J., et al. [1990, p.575-590, eng] **44-3363**
- HCl/H₂O solid-phase vapor pressures and HCl solubility in ice.** Hanson, D.R., et al. [1990, p.4700-4705, eng] **44-3946**
- Karst denudation in Norway.** Lauritzen, S.E., [1990, p.157-167, eng] **44-4418**
- Solutions**
- Freezing characteristics of ethylene glycol solution.** Fukusako, S., et al. [1989, p.303-309, eng] **44-1204**
- Solidification of an aqueous solution in a horizontal cylinder annulus.** Christenson, M.S., et al. [1989, p.998-1005, eng] **44-1840**
- Binary solidification in a vertical channel.** Bennon, W.D., et al. [1989, p.706-712, eng] **44-1841**
- Effect of reagents and container walls on the phase equilibrium of freezing solutions.** Strigotskii, S.V., [1989, p.29-35, rus] **44-2148**
- Crystallization of water in cooled solutions.** Kazarova, E.B., et al. [1987, p.1656-1658, rus] **44-2425**
- Freezing of concentrated aqueous polyvinyl alcohol solutions.** Lozinskii, V.I., et al. [1989, p.685-690, rus] **44-2572**
- Association between ice nuclei and fracture interfaces in sucrose-water glasses.** Williams, R.J., et al. [1989, p.103-107, eng] **44-2945**
- Modeling of solute rejection in freezing soils.** Panday, S.M., et al. [1990, p.195-201, eng] **44-2983**
- Effects of freezing on sulfate salts in North Dakota soils and wetlands.** Richardson, J.L., et al. [1990, p.212-215, eng] **44-2985**
- Soil water and solutes in soils after freezing.** Hofmann, L.L., et al. [1990, p.263-270, eng] **44-2993**
- Synthesis and X-ray diffraction analysis of AgI-CuBr solid solutions for ice nucleation.** Sivanesan, S., et al. [1990, p.263-265, eng] **44-3400**
- Vapor pressures of supercooled HNO₃/H₂O solutions.** Hanson, D.R., [1990, p.421-423, eng] **44-3424**
- Characteristic features of freezing of aqueous solutions.** Lozinskii, V.I., et al. [1990, p.592-596, eng] **44-3596**
- Solidification of a binary solution on a cold isothermal surface.** Braga, S.L., et al. [1990, p.745-754, eng] **44-3600**
- Phase changes in aqueous solutions.** Aguirre-Puente, J., et al. [1990, p.61-68, fre] **44-3644**
- Synthesis of AgI-AgCl-CuI solid solutions for ice nucleation studies.** Sivanesan, S., et al. [1990, p.129-133, eng] **44-3796**
- Sonar**
- See also: Acoustic measurement**
- Sonic velocity**
- See also: Sound transmission**
- Sound**
- See also: Acoustics**
- Sound transmission**
- Phase and travel time of acoustic modes in high latitude seas.** Lynch, J.F., et al. [1989, 9p., eng] **44-996**
- Determination of elastic moduli of sea ice.** Williams, K.L., et al. [1989, 6p., eng] **44-1627**
- Acoustic pulse propagation above grassland and snow.** Albert, D.G., et al. [1990, p.93-100, eng] **44-1877**
- Arctic ocean acoustics in CEAREX.** Baggehoer, A.B., [1989, p.2-3, eng] **44-3133**
- Arctic USW torpedo G&C program.** Ingram, R.D., [1989, p.152-153, eng] **44-3146**
- Weapon frequency arctic acoustic scattering.** Bishop, G.C., [1989, p.156-185, eng] **44-3147**
- Acoustic mode coherence in the Arctic Ocean.** Polari, J.J., [1986, 297p., eng] **44-3377**
- Sound waves at the water-sea ice interface.** Weng, W., et al. [1990, p.2481-2488, eng] **44-4276**
- High frequency transmissions propagated in the marginal ice zone.** Catipovic, J.A., et al. [1990, p.185-190, eng] **44-4280**
- Sound waves**
- Detection of avalanches using atmospheric infrasound.** Bedard, A.J., Jr., [1989, p.52-58, eng] **44-504**
- Acoustic control of ground ice using beam pattern emission.** Baukov, I.U.N., [1988, p.8-13, rus] **44-1343**
- Amplification of acoustic waves during rapid crystallization.** Nesterov, A.I., et al. [1988, p.103-104, eng] **44-2056**
- Sounding**
- Transient processes sounding method for searching and mapping cryopegs.** Nim, I.U.A., et al. [1989, p.112-125, rus] **44-157**
- Sea ice thickness measurement.** Kovacs, A., et al. [1989, p.394-424, eng] **44-3159**
- Ice strength estimates from submarine topsounder data.** DiMarco R., et al. [1989, p.425-426, eng] **44-3160**
- Soil electrical resistivity on King George I.** Iribarren B., M., et al. [1990, p.95-100, spa] **44-3710**
- Determination of the surface and bed topography in central Greenland.** Hodge, S.M., et al. [1990, p.17-30, eng] **44-3717**
- Airborne sea ice thickness sounding.** Kovacs, A., et al. [1990, p.225-229, eng] **44-3855**
- TIROS operational vertical sounder temperature retrievals.** Lutz, H.J., et al. [1990, p.11747-11754, eng] **44-4258**
- See also: Echo sounding. Radio echo soundings**
- South Orkney Islands**
- Late Quaternary glacial history of the South Orkney Plateau.** Herron, M.J., et al. [1990, p.265-275, eng] **44-4336**
- South Pacific Ocean**
- Ice conditions for navigation in the Pacific Ocean ice massif in winter.** Smirnov, V.I., [1989, p.56-64, rus] **44-2823**
- Ships' speed in the Pacific ice massif in winter.** Smirnov, V.I., [1989, p.64-68, rus] **44-2824**
- Giant and extensive ice and breccia fields in the Pacific and Atlantic oceans.** Korlovskii, A.M., et al. [1989, p.74-81, rus] **44-2826**
- Distribution of icebergs in the South Pacific Ocean according to observations from the icebreaker Vladivostok.** Korlovskii, A.M., [1989, p.81-84, rus] **44-2827**
- Snow covered ice in the Pacific ice massif.** Korlovskii, A.M., et al. [1989, p.84-87, rus] **44-2828**
- Antarctic sector of the Pacific.** Glasby, G.P., ed. [1990, 396p., eng] **44-4052**
- Meteorology of the antarctic Pacific.** Mullan, A.B., et al. [1990, p.21-54, eng] **44-4053**
- Ice of the antarctic Pacific.** Keys, J.R., [1990, p.95-123, eng] **44-4054**
- Sediments of the antarctic Pacific.** Anderson, J.B., [1990, p.187-206, eng] **44-4055**
- Spaceborne photography**
- Land-surface temperature measurement from space physical principles and inverse modeling.** Wan, Z.M., et al. [1989, p.268-278, eng] **44-45**
- Sea ice interpretation on satellite radar images.** Bushuev, A.V., et al. [1989, p.359-370, eng] **44-181**
- Comparing radar images of sea conditions with photographs.** Mitnik, I.M., et al. [1989, p.371-381, eng] **44-182**

Spaceborne photography (cont.)

- Use of Kosmos-1500 satellite radar images to study the distribution and the dynamics of sea ice. Bushuev, A.V., et al. [1989, p.382-390, eng] **44-183**
- Comparing sea ice photographs taken from airplanes and from satellites. Aleksandrov, V.I.U., et al. [1989, p.391-396, eng] **44-184**
- Radar maps of the Arctic and Antarctic using data from the Kosmos-1500 satellite and preliminary results of their analysis. Burtsev, A.I., et al. [1989, p.434-451, eng] **44-185**
- Kosmos-1500 satellite side-looking radar. Kalmykov, A.I., et al. [1989, p.471-485, eng] **44-186**
- Informational possibilities of the side-looking radar system of the "Kosmos-1500" satellite. Tsybaly, V.N., et al. [1989, p.486-501, eng] **44-187**
- Digital processing of radar images acquired by the Kosmos-1500 satellite. Asmus, V.V., et al. [1989, p.529-543, eng] **44-188**
- Determination of snow water equivalents by using NOAA-satellite images. Kuittinen, R., [1988, p.159-168, eng] **44-245**
- Satellite monitoring of snow cover and snowmelt runoff in China. Zeng, Q.Z., et al. [1988, p.52-66, eng] **44-266**
- Interpreting satellite imagery. Cote, P., [1989, p.58-59, eng] **44-273**
- On the value of long-term satellite passive microwave data sets for sea ice/climate studies. Parkinson, C.L., [1989, p.9-20, eng] **44-293**
- Spring melt patterns in the Kara/Barents Sea: 1984. Crane, R.G., et al. [1989, p.25-33, eng] **44-294**
- Arctic sea ice characteristics inferred from satellite and buoy data. Barry, R.G., et al. [1989, p.35-44, eng] **44-295**
- Infrared snow cover detection by warming of sea ice/snow surface. Ikeda, M., [1989, p.552-560, eng] **44-409**
- Use of SPOT HRV data in the Corps of Engineers dredging program. Merry, C.J., et al. [1988, p.1295-1299, eng] **44-435**
- Hydrologic modeling with remotely sensed data. Kite, G., [1989, p.1-8, eng] **44-498**
- Mapping snow cover with satellite imagery. Holroyd, E.W., III, et al. [1989, p.59-68, eng] **44-505**
- Low-relief topographic enhancement in a Landsat snow-cover scene. Eyton, J.R., [1989, p.105-118, eng] **44-524**
- Antarctic mosaic compiled from DMSP imagery. Scharfen, G.R., [1989, p.302, eng] **44-663**
- DMSP-SSM/1 NASA algorithm validation using primarily LANDSAT. Steffen, K., et al. [1988, 108p., eng] **44-709**
- Mapping very low surface temperature in the Scottish Highlands using NOAA AVHRR data. Collier, P., et al. [1989, p.1519-1529, eng] **44-773**
- Arctic Sea ice record from satellites and polar warming. Parkinson, C.L., [1989, p.459-463, eng] **44-1045**
- Snow water equivalent in a mountain basin using satellite data. Rango, A., et al. [1989, p.740-745, eng] **44-1201**
- Synoptic ice motion from satellite-derived imagery. Collins, M.J., [1989, p.79-85, eng] **44-1529**
- Spectral signature of alpine snow cover from the Landsat thematic mapper. Dozier, J., [1989, p.9-22, eng] **44-1530**
- Comparison of *in situ* and Landsat derived reflectance of Alaskan glaciers. Hall, D.K., et al. [1989, p.23-31, eng] **44-1531**
- Avalanche hazard derived from satellite photographs. Barbat, I.U.P., [1989, p.220-223, rus] **44-1592**
- Ice floe identification in satellite images. Banfield, J.D., et al. [1989, 35p., eng] **44-1599**
- Weather satellite views iceberg. Brandli, H.W., [1988, p.16, eng] **44-2119**
- Cloud classification from satellite data using a fuzzy sets algorithm: a polar example. Key, J.R., et al. [1989, p.1823-1842, eng] **44-2392**
- Composing hydrological maps using space photography data. Chalmers, L.V., et al. [1989, p.38-42, rus] **44-2522**
- Satellite monitoring of sea ice along the coast of China. Gong, J., [1989, p.379-390, eng] **44-2594**
- Estimation of properties of alpine snow from Landsat Thematic Mapper. Dozier, J., [1989, p.207-215, eng] **44-2596**
- Snow cover affected by a city. Prokacheva, V.G., et al. [1989, 17p. + appends., rus] **44-2804**
- Surface topography of the Greenland ice sheet from satellite radar altimetry. Bindaschler, R.A., et al. [1989, 105p. + 18 maps, eng] **44-2948**
- SAR image statistics related to atmospheric drag over sea ice. Burns, B.A., [1990, p.158-165, eng] **44-3011**
- Neptune. Kinoshita, J., [1989, p.82-91, eng] **44-3258**
- Comparison of *in situ* and satellite-derived reflectances of Forbindels Glacier, Greenland. Hall, D.K., et al. [1990, p.493-504, eng] **44-3350**
- Multisensor validation of satellite derived sea ice microwave images. Steffen, K., et al. [1990, p.75-82, eng] **44-3398**
- Snow cover distribution in Honshu from satellite imagery. Muramatsu, I., et al. [1990, p.1-11, jpn] **44-3401**
- Satellite remote sensing in Arctic for 1990's. Weeks, W.F., et al. [1989, p.510-530, eng] **44-3433**
- NOAA AVHRR imagery of antarctic sea ice. Allison, I., et al. [1989, p.38-61, eng] **44-3446**
- NOAA AVHRR imagery of sea ice near Casey. Allison, I., et al. [1989, p.62-79, eng] **44-3447**
- Satellite and geographic information system estimates of Colorado River Basin snowpack. Ferris, J.S., et al. [1989, p.1629-1635, eng] **44-3776**
- Classification of merged AVHRR and SMMR arctic data with neural networks. Key, J.R., et al. [1989, p.1331-1338, eng] **44-3777**
- Cloud cover analysis with radiometer data. Key, J.R., [1990, p.7661-7675, eng] **44-3873**
- Polynya observation using satellite-derived images and charts. Dey, B., et al. [1989, p.141-149, eng] **44-3896**
- Geostrophical features of the Lambert Glacier rift zone (Antarctica) using space images. Bud'ko, V.M., et al. [1990, p.926-942, eng] **44-3964**
- Satellite-supported methods for studying ice fields and underground water in the Eastern Pamirs. Topchiev, A.G., [1990, p.943-960, eng] **44-3965**
- Analysis of snow albedo as estimated by Landsat-5 Thematic Mapper. Bernier, M., et al. [1989, p.272-276, fre] **44-4026**
- SST in polynyas: a case study. Schlusessell, P., et al. [1990, p.933-945, eng] **44-4142**
- Digital analysis of blue ice extent on satellite images. Orheim, O., et al. [1990, p.211-215, eng] **44-4196**
- Ice streams on satellite images. Stephenson, S.N., et al. [1990, p.273-277, eng] **44-4209**
- Multiyear sea ice in the Arctic: model- and satellite-derived. Walsh, J.E., et al. [1990, p.11,613-11,628, eng] **44-4236**
- Shipborne AVHRR-HRPT receiving and image processing system for polar research. Viehoff, T., [1990, p.877-886, eng] **44-4282**
- Summer and fall satellite color studies of ice edges. Comiso, J.C., et al. [1990, p.9481-9496, eng] **44-4328**
- Sea ice concentration in the Bothnian Sea obtained from visual satellite data. Hakansson, B., [1989, p.1358-1369, eng] **44-4435**
- Satellite observations of the ice cover of regions of the Okhotsk Sea. Wakatsuchi, M., et al. [1990, p.13,393-13,410, eng] **44-4544**
- See *also*: LANDSAT
- Spacecraft**
- Space and airborne technology applications to antarctic operations. Thomson, R.B., ed. [1989, 159p., eng] **44-3444**
- Applications of ISES for snow, ice, and sea state. A.T.C., et al. [1990, p.189-196, eng] **44-3949**
- Multiband imaging systems. McKim, H.L., et al. [1990, 10p., eng] **44-4058**
- Spain**
- Redó Lake**
- Winter cover of a high-mountain Mediterranean lake (Estany Redó, Pyrenees). Catalan, J., [1989, p.519-527, eng] **44-6**
- Specific volume**
- See *also*: Density (mass/volume)
- Specifications**
- Some recent problems with air-entrained concrete. Hover, K.C., [1989, p.67-72, eng] **44-133**
- Retrofitting of CCG icebreaker *Louis S. St. Laurent*. Nissen, P.C., [1989, p.666-671, ger] **44-134**
- Successful ice test-run for the new Swedish icebreaker *Oden*. [1989, p.705-706, eng] **44-135**
- Double pipe ensures reliable insulation of offshore pipelines. Bruschi, R., et al. [1988, p.59-67, eng] **44-2590**
- Requirements of diesel engine oil as it relates to low temperature operation. Roth, R.J.G., [1989, 12p., eng] **44-2854**
- Effect of specifications and inspection practices on concrete freeze-thaw resistance. Ward, M.A., et al. [1990, p.271-276, eng] **44-3703**
- Hovercraft trials on Song-Hua River. Zhao, J., et al. [1989, p.69-75, eng] **44-4136**
- Preproduction test of cold-weather aircrew clothing system. Todd, W.E., [1990, 17p. + appends., eng] **44-4465**
- See *also*: Building codes; Design criteria; Standards
- Spectra**
- Transformation of radar characteristics of the spectra of melting hail. Inukhin, V.S., et al. [1989, p.42-52, rus] **44-867**
- Cloud phase discrimination by near-infrared remote sensing. Pilewskie, P.A., [1989, 119p., eng] **44-974**
- Calculation of the Auger spectrum of liquid water. Liegener, C.M., et al. [1988, p.2618-2623, eng] **44-2346**
- Periodicities and keel spacings in the under-ice draft distribution. Key, J.R., et al. [1990, p.156-160, eng] **44-3841**
- Spectroscopy**
- Ground object spectral reflectance. Feng, X.Z., et al. [1988, p.146-151, chi] **44-645**
- Raman spectroscopic study of bulk water supercooled to -33°C. Hare, D.E., et al. [1990, p.25-33, eng] **44-3966**
- See *also*: Ice spectroscopy; Infrared spectroscopy
- Spheres**
- Scattering of a spheroidal ice/water particle. Hume, A.L., et al. [1989, p.351-357, eng] **44-367**
- Heat transfer in evacuated packed glass spheres at low temperature. Kluge, V.B., et al. [1988, p.239-248, ger] **44-3571**
- Spillways**
- Reduced winter leakage in gates with J-seals. Rand, J.H., et al. [1989, 3p., eng] **44-3794**
- Spray**
- See *also*: Sea spray
- Spray freezing**
- Transition limits for water-droplet crystallization with the NASA Lewis icing nozzle. Marek, C.J., [1989, p.887-888, eng] **44-377**
- Design and construction of the Mars ice island. Funegard, D.G., et al. [1988, p.31-38, eng] **44-1013**
- On the creep properties of field-retrieved sprayed ice. Spencer, P.A., et al. [1988, p.539-550, eng] **44-1171**
- Construction and performance of the Kadluk 0-07 sprayed ice pad. Kemp, T.S., et al. [1988, p.551-564, eng] **44-1172**
- On the freezing of sprayed sea water to produce artificial sea ice. Sackinger, W.M., et al. [1988, p.581-590, eng] **44-1175**
- Icing hazards on supply vessels and stand-by boats. Horjen, I., et al. [1986, 87p., eng] **44-1277**
- Ice accretion on a cylinder in cold air with seawater spray. Fukusako, S., et al. [1988, p.981-988, eng] **44-1377**
- Effect of ice nucleators on snow making and spray freezing. Liao, J.C., et al. [1990, p.361-366, eng] **44-3784**
- Springs (water)**
- See *also*: Hot springs
- Stability**
- Investigation into the post-stable behavior of a tube array in cross-flow. Lever, J.H., et al. [1989, p.457-465, eng] **44-1536**
- Year-to-year instability of the Mars south polar cap. Jakosky, B.M., et al. [1990, p.1359-1365, eng] **44-2287**
- Clathrate polyhydrates of peralkylonium salts and their analogs. Diadin, I.U.A., et al. [1987, p.75-116, rus] **44-2426**
- Streamline solution for rigid laterally loaded piles in permafrost. Foriero, A., et al. [1989, p.568-574, eng] **44-2643**
- Subdivision and stability for arctic vessels. Kendrick, A., [1990, p.2/1-2/6, eng] **44-3487**
- Mathematical models for time-ice accretion on conductors. Skelton, P.L.I., et al. [1990, p.309-321, eng] **44-3604**
- Creep rates of spray ice. Shields, D.H., et al. [1990, p.185-194, eng] **44-3626**
- Assessment of hydraulic structures in a stream after seasonal ice run. Calkins, D.J., et al. [1989, 12p., eng] **44-3923**
- See *also*: Slope stability; Snow cover stability; Static stability
- Stabilization**
- See *also*: Channel stabilization; Snow stabilization; Soil stabilization
- Standards**
- By the numbers on snow or ice. Spence, C., [1988, p.18-20, eng] **44-758**
- Passenger car and light truck tire dynamic driving traction in snow. [1985, 26p., eng] **44-949**
- Guide for building and classing steel vessels intended to navigate in ice. [1986, 50p., eng] **44-2064**
- Development of standard CAN/CGSB-16.3-M asphalt cement for road purposes. Deme, L., et al. [1988, p.342-381, eng] **44-2844**
- See *also*: Building codes; Design criteria; Work time standards
- Starters**
- See *also*: Engine starters
- Static loads**
- Evaluation of low-cyclic strength of cryogenic equipment. Muratov, V.M., et al. [1990, p.161-167, rus] **44-4373**
- Stations**
- Field stations in arctic and subarctic Canada. Adams, P., [1989, p.303-305, eng] **44-4032**
- See *also*: Drift stations; Weather stations
- Statistical analysis**
- Reservoir operations guides: application on three reservoirs. Marron, J.K., et al. [1989, p.69-78, eng] **44-506**
- Statistical forecast model for Libby Basin, Montana. Wortman, R.T., [1989, p.100-107, eng] **44-509**
- Regional comparisons of avalanche-profile and runoff data. Mears, A.I., [1989, p.283-287, eng] **44-1267**
- Spreadsheet analysis of hailstone thermodynamics. List, R., [1989, p.1118-1127, eng] **44-1514**
- Statistical properties of freeze date variables. Waylen, P.R., et al. [1989, p.1314-1328, eng] **44-1526**
- Observation of the sound radiated by individual ice fracturing events. Stein, P.J., [1988, p.533-544, eng] **44-1708**
- Regional ice scour data base update studies. King, E.I., et al. [1989, 177p. + appns., eng] **44-3206**
- Regional climatic trends in northern New England. Haugen, R.K., et al. [1988, p.64-71, eng] **44-3927**

- Application of aerosol physics to snow research. Hogan, A.W., 1989, p.201-207, eng 44-4013
- Quantitative approximation of mountain glacial climates. Locke, W.W., III, 1990, p.164-167, eng 44-4185
- Errors in measuring the winter precipitation layer by data from the precipitation gage network. Vinogradova, A.A., et al, 1989, p.25-31, rus 44-4227
- Monte Carlo study of melting of a model bulk ice. Han, K.K., 1989, 89p., eng 44-4283
- Statistical forecasting of river ice conditions. Shanochkin, S.V., et al, 1989, p.86-95, rus 44-4408
- Steam curing**
See *alloy*: Concrete curing
- Steel structures**
Concrete-steel composite structures. Kouhi, J., et al, 1989, 174p., fin 44-464
- Bond between coated steel surfaces and sea spray ice. Sackinger, W.M., et al, 1988, p.565-570, eng 44-1173
- Ultimate loads for corrugated-steel, barrel-type shell structures. Briassoulis, D., et al, 1987, 52p., eng 44-1408
- Protective coatings for steel structures in cold regions. Saeki, N., et al, 1986, p.557-563, jpn 44-2499
- Adfreeze bond strength between sea ice and anti-corrosion steel. Ohtsuki, F., et al, 1987, p.346-352, jpn 44-2550
- Abrasion of steel piles by sea ice. Sato, K., et al, 1987, p.353-359, jpn 44-2551
- Corrosion data analysis for development of engineering criteria for arctic structures. Brown, T.G., et al, 1989, 203p. + Appends., eng 44-3354
- Steel and concrete in arctic structures. Maddock, W.J., et al, 1984, p.O/1-O/9, eng 44-3463
- Arctic corrosion and its effects on the strength of icebreakers. Brown, T.G., et al, 1990, p.S/1-S/11, eng 44-3481
- Materials aspects for arctic vessels. Tomin, M.J., 1990, p.Y/1-Y/10, eng 44-3486
- Effect of residual stress on the cold-resistance and endurance of welded joints. Larionov, V.P., et al, 1990, p.891-896, eng 44-3876
- Strength of steel structures at low temperatures. Strizhalo, V.A., ed, 1990, 273p., rus 44-4338
- Effect of deformation on steel sensitivity to stresses. Antropov, N.P., et al, 1990, p.21-25, rus 44-4342
- Ultimate loads on fractured parts at low temperatures. Kosten, O.N.A., et al, 1990, p.114-119, rus 44-4362
- Effect of low-temperature strengthening on durability of structures. Kuranov, B.A., et al, 1990, p.120-125, rus 44-4363
- Physical and mechanical model of cold brittleness. Meshkov, I.U.I.A., 1990, p.141-146, rus 44-4368
- Crack resistance of pipe welds. Mindlin, V.G., et al, 1990, p.146-150, rus 44-4369
- Effect of stresses on technological strength of steels. Mikhailov, V.E., et al, 1990, p.150-153, rus 44-4370
- Effect of low temperature and hydrogen on destruction of steel joints. Mikhailov, V.E., et al, 1990, p.153-157, rus 44-4371
- Effects of roughness and thinning of weld rims on strength of structures. Roslanov, V.A., 1990, p.197-202, rus 44-4380
- Prevention of crack formation in T-joints during welding in winter. Savinov, I.T., 1990, p.202-206, rus 44-4381
- Fatigue resistance of steel structures in the Far North. Shul'ginov, B.S., 1990, p.248-253, rus 44-4392
- Steels**
Cyclic endurance of steels at reduced temperatures. Zorin, E.E., et al, 1989, p.612-613, eng 44-530
- Increasing the strength of welded structures for the North. Sleptsov, O.I., et al, 1989, 220p., rus 44-1008
- Weld-zone corrosion of steel plates for icebreakers. Brigham, R.J., et al, 1988, p.311-321, eng 44-1024
- Cold resistance of a seam in a high strength steel welded joint. Snisar, V.V., et al, 1988, 3p., eng 44-1236
- Corrosion resistance of stainless steel in Frigid Zone (pt 1). Kitamura, Y., et al, 1988, p.79-83, jpn 44-1296
- High-strength steel plates for arctic offshore structures. Kaji, H., et al, 1988, p.73-76, jpn 44-1311
- Mechanical properties of A286 alloy at cryogenic temperatures. Kohno, M., et al, 1988, p.85-88, jpn 44-1312
- Copper-bearing steel for arctic pipelines. Tamehiro, H., et al, 1990, p.13-20, eng 44-2078
- Strength and property of steel for low temperature. Oshima, T., 1986, p.547-550, jpn 44-2497
- Fatigue behavior of steel at low temperature. Kawai, Y., et al, 1986, p.551-556, jpn 44-2498
- Abrasion of steel piles by sea ice. Sato, K., et al, 1987, p.353-359, jpn 44-2551
- Effects of cryogenic temperatures on materials properties. Bibliography 1990, 94p., eng 44-2817
- Deformation of steel at low temperatures. Koval'chuk, B.I., et al, 1989, p.56-59, eng 44-3880
- Low temperature effect on the damping properties of polymer glue. Yakovlev, A.P., et al, 1990, p.681-684, eng 44-3900
- Metallurgical approach to brittle-to-ductile-transition temperature. Huang, Z., 1990, p.185-194, eng 44-3954
- Fracturing in austenitic steel and nickel alloy at low temperatures. Aleksenko, E.N., et al, 1990, p.16-21, rus 44-4341
- Test methods for crack-resistance of structural steels under dynamic load. Basko, E.M., et al, 1990, p.28-32, rus 44-4344
- Effect of heat treatment, chemical composition and anticorrosive coatings on the threshold of cold brittleness of structural steels. Belkin, L.M., et al, 1990, p.33-38, rus 44-4345
- Diagrams of structural strength of steels with respect to cold brittleness. Vikulin, A.V., et al, 1990, p.51-56, rus 44-4349
- Role of alloying in changing properties of steels at low temperatures. Volosevich, P.I.U., et al, 1990, p.56-61, rus 44-4350
- Specific energy for the destruction of 10Kh2GM steels at low temperatures. Guliaev, V.P., et al, 1990, p.78-81, rus 44-4354
- Studies of the localization of plastic flow of metals at low temperatures. Eremin, V.I., et al, 1990, p.96-101, rus 44-4358
- Defect resistance of steels at low temperatures. Zlenko, G.P., et al, 1990, p.106-110, rus 44-4360
- Effect of low temperature on fracture resistance of steels. Kashtalian, I.U.A., et al, 1990, p.110-113, rus 44-4361
- Low-temperature durability of welded steel joints. Kurkin, S.A., et al, 1990, p.125-126, rus 44-4364
- Resistance of welded joints to viscous and brittle failure. Leushin, I.G., et al, 1990, p.135-140, rus 44-4367
- Steel strengthening by electric current at cryogenic temperatures. Novogradskii, L.S., 1990, p.167-172, rus 44-4374
- Effect of stress concentration on local limit of viscosity. Novopashin, M.D., et al, 1990, p.172-176, rus 44-4375
- Mechanical properties of carbonic nickel steels at low temperatures. Perkas, M.D., et al, 1990, p.181-186, rus 44-4377
- Brittle-destruction criteria for alloy steel bending. Sarraf, V.I., et al, 1990, p.213-215, rus 44-4384
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- Effect of low temperatures on deformation of construction materials. Skripnik, I.U.D., et al, 1990, p.224-229, rus 44-4387
- Metals at cryogenic temperatures under magnetic exposure. Strizhalo, V.A., et al, 1990, p.233-237, rus 44-4389
- Strength of materials and welded parts of structures in cold weather. Khanukhov, Kh.M., et al, 1990, p.237-243, rus 44-4390
- Effect of phase conversion on viscosity of steels. Shternin, S.L., et al, 1990, p.243-247, rus 44-4391
- Crack resistance of steels using physical parameters of viscosity. Iurovskikh, V.V., et al, 1990, p.257-261, rus 44-4394
- Using explosion to increase steel durability. Iakovleva, S.P., et al, 1990, p.264-269, rus 44-4396
- Steel critical brittleness temperature derived from specimen cracking. Zvezdin, I.U.I., et al, 1990, p.486-488, eng 44-4496
- Determination of critical brittleness temperatures in crack resistance testing. Karzov, G.P., et al, 1990, p.489-493, eng 44-4497
- Stefan problem**
Thin ice growth. Ashton, G.D., 1989, p.564-566, eng 44-7
- Cylindrical Stefan problem sensitiveness to thermal and geometrical parameters. Cames-Pintaux, A.M., et al, 1989, p.547-549, eng 44-931
- Analytical and numerical methods on freezing and melting heat-transfer problems. Fukusako, S., et al, 1987, p.351-402, eng 44-1476
- Thermal coefficients of a material through a two-phase Stefan problem. Stampella, M.B., et al, 1989, p.1407-1419, eng 44-2060
- Frontal freezing of ground with frost heave. Sarkisian, R.M., 1985, p.26-31, rus 44-2367
- Velocity effects in unstable solidification. Strain, J., 1990, p.1-15, eng 44-3165
- Some remarks on the regularization of supercooled one-phase Stefan problems in one dimension. Fasano, A., et al, 1990, p.153-168, eng 44-3309
- On the numerical solution of Stefan problems in temperate ice. Hutter, K., et al, 1990, p.41-48, eng 44-3720
- Random choice method for the Stefan problem. Sod, G.A., 1990, p.1-9, eng 44-3785
- Steppes**
Relic cryoxerophytic communities of the western Chukotski peninsula and their soils. Kozitskaia, I.T., et al, 1985, p.148-153, eng 44-279
- Stereophotography**
Stereological characterization of dry alpine snow for microwave remote sensing. Davis, R.E., et al, 1989, p.245-251, eng 44-2598
- Stereoscopic cameras**
Development and certification of a visibility-range monitor by image processing. Ishimoto, K., et al, 1989, p.117-119, eng 44-558
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Arctic marine transport and ancillary technologies. Frankel, E.G., 1988, p.100-129, eng 44-1121
- See *alloy*: Cold storage; Ice (water storage); Oil storage; Snow retention; Underground storage; Water storage
- Storage tanks**
Frost heave and soil constants. Kataoka, T., et al, 1987, 30p., jpn 44-3191
- Safety of liquid carbon dioxide storage vessels. Coleman, T., 1989, p.29-30, eng 44-3696
- See *alloy*: Tanks (containers)
- Storms**
Small high-latitude ocean storms. Twitchell, P.F., et al, 1988, p.207-214, eng 44-1140
- Transport of dust to high northern latitudes in a Martian polar warming. Barnes, J.R., 1990, p.1381-1400, eng 44-2289
- Polar lows. Fett, R.W., 1989, p.267-272, eng 44-3153
- Salt-water anchor ice formation. Kempema, E.W., et al, 1990, p.114-116, eng 44-3832
- See *alloy*: Ice storms; Snowstorms; Thunderstorms
- Strain measuring instruments**
Hopkinson pressure bar to measure strain rates of materials. Dutta, P.K., et al, 1988, p.885-903, eng 44-283
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- Strain tests**
Hopkinson pressure bar to measure strain rates of materials. Dutta, P.K., et al, 1988, p.885-903, eng 44-283
- Cyclic endurance of steels at reduced temperatures. Zorin, E.E., et al, 1989, p.612-613, eng 44-530
- Polycrystalline ice creep under hydrostatic pressure. Mizuno, Y., et al, 1988, p.1-13, jpn 44-727
- Experimental evaluation of the tensile strength of impact ice. Xian, X., et al, 1989, p.1205-1208, eng 44-1512
- Fracture of concrete at cryogenic temperatures. Ellices, M., et al, 1989, p.106-116, eng 44-1736
- Results from the full scale testing of the new icebreaker *Oden*. Liljeström, G., et al, 1990, p.F/1-F/9, eng 44-3469
- Comparison of the compressive strength of antarctic frazil ice and laboratory-grown columnar ice. Richter-Menge, J.A., et al, 1990, p.79-84, eng 44-3823
- Strains**
Effect of boundary conditions and snow cover on snow creep. McClung, D.M., et al, 1989, p.175-179, eng 44-569
- Snow creep pressures. McClung, D.M., et al, 1989, p.33-47, eng 44-828
- Stress-strain behavior and heat-mass transfer of frozen soil. Razbegin, V.N., 1989, p.419-424, eng 44-918
- Ice mechanics at intermediate strain rate. Blair, S.C., 1988, p.1-9, eng 44-1124
- Experimental study of the brittle behaviour of iceberg ice. Lachance, J., et al, 1988, p.11-19, eng 44-1125
- Effective approximate algorithm to predict the delayed elastic strain. Santaoja, K., 1988, p.31-43, eng 44-1127
- High speed data acquisition system for PCC pavement testing. Okamoto, P.A., 1989, p.128-135, eng 44-1650
- State-of-the-art stress, strain and deflection measurements. Uhlidz, P., et al, 1989, p.148-161, eng 44-1653
- Monitoring pavement responses to traffic loads. Christison, J.T., 1989, p.180-185, eng 44-1656
- Use of the multipoint deflectometer for deflection measurements. Scullion, T., et al, 1989, p.186-196, eng 44-1657
- SASW method in determining moduli of pavements. Nazarian, S., 1989, p.210-225, eng 44-1659
- Testing of instrumented airfield pavements, Manitoba, Canada. Ganapathy, G.V., 1989, p.234-265, eng 44-1661
- In-situ measurements in hot-mix asphalt pavements.**
Anderson, D.A., et al, 1989, p.278-285, eng 44-1663
- Experience of pavement instrumentation at TRRL. Addis, R.R., 1989, p.385-393, eng 44-1674
- Construction of fully instrumented test pavements in North Carolina. Stubstad, R.N., et al, 1989, p.394-401, eng 44-1675
- Dating the Mizuho 700-m core from core ice fabric data. Nakawo, M., et al, 1989, p.105-110, eng 44-1807
- Exploration drilling and production in the Barents Sea. Löset, S., et al, 1990, p.25-30, eng 44-2203
- Discussion of recent work to develop a more realistic pressure-area model for ice. Winkler, M.M., et al, 1990, p.231-235, eng 44-2228
- Confined compressive test on multi-layer sea-ice. Yue, Q.J., et al, 1990, p.237-240, eng 44-2229
- Crack nucleation in polycrystalline ice. Wu, M.S., et al, 1990, p.273-282, eng 44-2235
- Is minimum creep rate a fundamental material property. Sinha, N.K., 1990, p.283-288, eng 44-2236
- Compressive strength and deformation in fine-grained frozen soils. Joshi, R.C., et al, 1990, p.317-325, eng 44-3677

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- Stratified slope deposits in the Central Andes of Peru. Francou, B., [1988, p.47-76, fre] **44-691**
- Transverse ridges on rock glaciers. Loewenherz, D.S., et al. [1989, p.383-391, eng] **44-1900**
- Ice-push bedrock and its syngenetic till at Pont-Rouge, Québec. Schroeder, J., et al. [1990, p.33-42, fre] **44-3531**

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- Sediments of glacial-interglacial cycles in the Norwegian Sea. Henrich, R., et al. [1989, p.283-319, eng] **44-219**
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- Contributions to the early Holocene deglaciation history in Greenland. Scholz, H., et al. [1989, p.22-41, eng] **44-1001**
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- Glaciological characteristics of cores drilled on Jostedalsgreen, southern Norway. Kawamura, T., et al. [1989, p.152-160, eng] **44-1813**
- Lacustrine sedimentary record of ice-dammed Neoglacial Lake Alsek. Schmok, J.P., et al. [1989, p.2092-2105, eng] **44-2273**
- Facies model for deglaciation in an alpine valley. Pugin, A., [1989, p.235-248, eng] **44-2391**
- Ice-wedge casts in an early deglaciated area of southern Sweden. Svensson, H., [1987, p.12-18, eng] **44-2583**
- Glacial outwash plain revisited. Jonsson, J., [1989, p.199-209, eng] **44-2622**
- Glacial history of the Ross Sea region based on DSDP Leg 28 Sites 272 and 273. Savage, M.L., [1982, 187p., eng] **44-3184**
- Stratigraphy, active layer, and discontinuous permafrost in northern Quebec. Ben-Miloud, K., et al. [1990, p.181-190, eng] **44-3661**
- Reconnaissance geology and exploration geochemistry of King Cove, Alaska Peninsula. DuBois, G.D., et al. [1989, 23p., eng] **44-3763**
- Thermal maturity and organic geochemistry of the Kandik basin region, east-central Alaska. Underwood, M.B., et al. [1989, 41p., eng] **44-3764**
- Buried snowbank ice in the central and northern Yukon Territory. Pollard, W.H., [1989, p.292-297, eng] **44-4030**
- Sedimentology and depositional environments of the Lund Diamict, southern Sweden. Persson, K.M., et al. [1990, p.181-199, eng] **44-4477**
- See *also*: Firn stratification; Snow stratigraphy
- Stream flow**
- Uncertainties in streamflow measurement under winter ice conditions. A case study: the Red River at Emerson, Manitoba, Canada. Pelletier, P.M., [1988, p.269-292, eng] **44-255**
- Effects of interbasin transfer on streamflow regimes, northwestern Ontario, Canada. Woo, M.K., et al. [1988, p.331-341, eng] **44-260**
- Changes in stream hydrochemistry during spring snowmelt in Norway. Ferrier, R.C., et al. [1989, p.321-337, eng] **44-267**
- On the generation of stream runoff in till soils. Rodhe, A., [1989, p.1-8, eng] **44-375**
- Interannual variations in snowpack in the Rocky Mountain region. Doerken, N.J., et al. [1989, p.21-30, eng] **44-500**
- Hydrological model input accuracy in determination of water yield. Stednick, J.D., [1989, p.36-44, eng] **44-502**
- Direction toward improved streamflow forecasting in the Western mountains. Day, G.N., et al. [1989, p.79-89, eng] **44-507**
- Estimating the effects of wildfire on water supplies in the northern Rocky Mountains. Farnes, P.E., et al. [1989, p.90-99, eng] **44-508**
- Assessing the effects of climatic changes on snowpack and streamflow. Cooley, K.R., [1989, p.118-121, eng] **44-511**
- Automated collection of water-quality and discharge data on streams. Sturges, D.L., et al. [1989, p.122-125, eng] **44-512**

- Errors in rating of suspended sediment transport during ablation seasons. Fenn, C.R., [1989, p.64-68, eng] **44-550**
- Ice loss in the ablation area of a Himalayan glacier. Young, G.J., et al. [1989, p.289-293, eng] **44-592**
- Analysis of suspended sediment in a proglacial stream. Fenn, C.R., et al. [1989, p.123-135, eng] **44-687**
- Hydrology of small tributary streams in a subarctic wetland. Woo, M.K., et al. [1989, p.1557-1566, eng] **44-1010**
- Water quality and stream flow in an Alaska watershed. Hilgert, J.W., et al. [1987, 37p., eng] **44-1084**
- Streamflow measurement under winter ice conditions in Manitoba. Pelletier, P.M., [1989, p.1857-1867, eng] **44-2124**
- Automatic monitoring of short duration snowmelt events in a Nova Scotia headwater stream. Howell, G.D., et al. [1989, p.145-153, eng] **44-2434**
- Seasonal distribution of low flow events in New Hampshire streams with emphasis on the winter period. Melloh, R.A., [1990, p.47-53, eng] **44-3029**
- Snowmelt and stream flow in the Sierra Nevada. MacDonald, L.H., [1990, 405p., eng] **44-3269**
- Geologic influences on fluvial hydrology in some watersheds of New Mexico. Kelson, K.L., et al. [1989, p.671-690, eng] **44-3396**
- Water sampling stations in AK as of Sep. 1988. Still, P.J., et al. [1989, 189p., eng] **44-3737**
- Is the antarctic ice sheet disintegrating. Kamb, B., [1990, p.4-13, eng] **44-3751**
- Assessment of hydraulic structures in a stream after seasonal ice run. Calkins, D.J., et al. [1989, 12p., eng] **44-3923**
- Snowmelt runoff studies in upper Yamuna basin. Parsad, R.S., et al. [1989, p.213-218, eng] **44-4015**
- See *also*: River flow; Runoff
- Streams**
- Deposits in a small ice-dammed lake in Norway. Donnelly, R., et al. [1989, p.581-600, eng] **44-682**
- Hydrochemistry of alpine-subalpine streams, Colorado Rocky Mountains. Stednick, J.D., [1989, p.276-282, eng] **44-1266**
- Stream development in Glacier Bay National Park, Alaska. U.S.A. Sidle, R.C., et al. [1989, p.350-363, eng] **44-2008**
- Estimating maximum spring runoff of rivers and intermittent streams. Fomenko, I.A., et al. [1988, p.19-33, rus] **44-2126**
- Lidar detection of leads in arctic sea ice. Schnell, R.C., et al. [1990, p.119-123, eng] **44-3833**
- Review of the oceanography and micrometeorology of arctic leads and polynyas. Smith, S.D., [1990, p.123-126, eng] **44-3834**
- Studies of snow chemistry in the Scottish Highlands. Davies, T.D., et al. [1989, p.1-13, eng] **44-3994**
- Meltwater solute concentrations at a forested site. Peters, N.E., et al. [1989, p.45-56, eng] **44-3998**
- Strength**
- Durability of particulate grouts for isolation of low-level radioactive wastes. Okonkwo, I.O., [1989, 490p., eng] **44-965**
- Improving the design of ice-resistant platforms in the Bohai Gulf. Li, T.K., et al. [1988, p.345-349, eng] **44-1152**
- Cold climatic effects on the properties of polyester wound plastic. Gerasimov, A.A., et al. [1989, p.653-658, eng] **44-1871**
- Influence of sign-variable temperature on rock strength. Rozenbaum, M.A., et al. [1989, p.22-26, eng] **44-2755**
- Method to control paving operations in marginal weather. White, S., et al. [1988, p.120-153, eng] **44-2838**
- PVN as a measure of paving asphalt temperature susceptibility. McLeod, N.W., [1988, p.382-452, eng] **44-2845**
- Strength of steel structures at low temperatures. Strizhalo, V.A., ed. [1990, 273p., rus] **44-4338**
- Subzero treatment of construction alloys. Pisarenko, G.S., et al. [1990, p.3-9, rus] **44-4339**
- Resistance of welded joints to crack propagation at low temperatures. Bondarovich, L.A., et al. [1990, p.38-43, rus] **44-4346**
- Role of alloying in changing properties of steels at low temperatures. Volosevich, P.I., et al. [1990, p.56-61, rus] **44-4350**
- Temperature and stresses in a superconductor coil during freezing. Grenaderova, L.A., et al. [1990, p.73-78, rus] **44-4353**
- Defect resistance of steels at low temperatures. Zlenko, G.P., et al. [1990, p.106-110, rus] **44-4360**
- Effect of low temperature on fracture resistance of steels. Kashtalian, I.U.A., et al. [1990, p.110-113, rus] **44-4361**
- Resistance of welded joints to viscous and brittle failure. Leushin, I.G., et al. [1990, p.135-140, rus] **44-4367**
- Evaluation of low-cyclic strength of cryogenic equipment. Muratov, V.M., et al. [1990, p.161-167, rus] **44-4373**
- Steel strengthening by electric current at cryogenic temperatures. Novogrudskii, I.S., [1990, p.167-172, rus] **44-4374**
- Low-temperature strengthening of materials. Ostash, O.P., et al. [1990, p.176-181, rus] **44-4376**

- Mechanical properties of carbonic nickel steels at low temperatures. Perkas, M.D., et al. [1990, p.181-186, rus] **44-4377**
- Features of alloy metal welds at low temperatures. Polushkin, I.U.A., et al. [1990, p.186-191, rus] **44-4378**
- A method for evaluation of fracture resistance in metals. Savrasov, V.V., [1990, p.207-210, rus] **44-4382**
- Effects of cryogenic media on fatigue resistance in steels. Silin, P.N., et al. [1990, p.215-219, rus] **44-4385**
- Crack resistance of steels using physical parameters of viscosity. Il'rovskikh, V.V., et al. [1990, p.257-261, rus] **44-4394**
- Cyclic durability of Nb-Cu in the temperature range of 293-4.2 K. Iakovenko, L.F., [1990, p.261-264, rus] **44-4395**
- Using explosion to increase steel durability. Iakovleva, S.P., et al. [1990, p.264-269, rus] **44-4396**
- See *also*: Bearing strength; Concrete strength; Flexural strength; Frozen ground strength; Frozen rock strength; Ice cover strength; Ice strength; Impact strength; Shear strength; Snow strength; Soil strength; Ultimate strength
- Stress concentration**
- Analysis of stress distributions in an ice flow. Frederking, R.M.W., et al. [1990, p.83-87, eng] **44-2210**
- Stress relaxation**
- See *also*: Relaxation (mechanics)
- Stress strain diagrams**
- General report on mechanical properties of frozen soil. Andersland, O.B., [1989, p.433-441, eng] **44-919**
- Compressive strength of low salinity sea ice, Gulf of Bothnia. Fransson, L.A., et al. [1988, p.21-29, eng] **44-1126**
- Stress-strain behaviour of cohesionless broken ice. Gale, A.D., et al. [1988, p.109-119, eng] **44-1133**
- Modelling the behaviour of an oil saturated sand. Evgin, E., et al. [1990, p.31-37, eng] **44-2204**
- Ice structure interface model for crushing with extrusion. Marcellus, R.W., et al. [1990, p.95-101, eng] **44-2212**
- Failure stress and modulus of ice island ice under compression. Jeffries, M.O., et al. [1990, p.223-229, eng] **44-2227**
- Cyclic loading of saline ice: initial experimental results. Cole, D.M., [1990, p.265-271, eng] **44-2234**
- Stresses**
- Avalanche formation and snow fences. Yoshida, Z., et al. [1988, p.45-56, ipn] **44-731**
- Determining moisture induced distress in asphalt concrete mixes. Heinicke, J.J., et al. [1987, 99p., eng] **44-784**
- Stress-strain behavior and heat-mass transfer of frozen soil. Razbegin, V.N., [1989, p.419-424, eng] **44-918**
- Case study on freezing pressure in a deep shaft. Chou, W.X., [1989, p.481-486, eng] **44-923**
- Effective approximate algorithm to predict the delayed elastic strain. Santaaja, K., [1988, p.31-43, eng] **44-1127**
- Failure of ice sheets under transverse loads. Wierzbicki, T., et al. [1988, p.369-380, eng] **44-1155**
- Compressibility of sand-ice system. Youssef, H., [1988, p.497-506, eng] **44-1167**
- Crack propagation on floating structures in ice-infested waters. Swamidass, A.S.J., et al. [1988, p.527-537, eng] **44-1170**
- On the creep properties of field-retrieved sprayed ice. Spencer, P.A., et al. [1988, p.539-550, eng] **44-1171**
- Devices measuring deformations and stresses in ice fields. Smirnov, V.M., et al. [1989, 5p., eng] **44-1499**
- State-of-the-art stress, strain and deflection measurements. Ullidtz, P., et al. [1989, p.148-161, eng] **44-1653**
- In situ stress measurements. Selig, E.T., [1989, p.162-169, eng] **44-1654**
- Testing of instrumented airfield pavements, Manitoba, Canada. Ganapathy, G.V., [1989, p.234-265, eng] **44-1661**
- Applications of field instrumentation and performance monitoring of rigid pavements. Rollings, R.S., et al. [1989, p.268-277, eng] **44-1662**
- Full scale pavement test international joint research. Dumont, A.G., et al. [1989, p.370-375, eng] **44-1672**
- Experience of pavement instrumentation at TRRL. Addis, R.R., [1989, p.385-393, eng] **44-1674**
- Construction of fully instrumented test pavements in North Carolina. Stubstad, R.N., et al. [1989, p.394-401, eng] **44-1675**
- Estimations of stresses on a shaft during the thawing of rocks. Kul'tikov, A.M., [1989, p.88-96, rus] **44-2157**
- Creep buckling analysis of a floating ice sheet moving against a structure. Luk, C.H., [1990, p.103-110, eng] **44-2213**
- Field measurements of ice drag coefficients. Bruno, M.S., [1990, p.155-159, eng] **44-2219**
- Field measurement of pack ice stresses. Comfort, G., et al. [1990, p.177-181, eng] **44-2222**
- Fracture experiments on S2 columnar freshwater ice. DeFranco, S.J., et al. [1990, p.247-252, eng] **44-2231**
- Crack nucleation in polycrystalline ice. Wu, M.S., et al. [1990, p.273-282, eng] **44-2235**
- Is minimum creep rate a fundamental material property. Sinha, N.K., [1990, p.283-288, eng] **44-2236**
- Ice drift and momentum exchange in winter antarctic pack ice. Martinson, D.G., et al. [1990, p.1741-1755, eng] **44-2360**

- Hull girder minimum section modulus of large merchant ice breakers. Huthner, M., et al. [1984, p.C/1-C/8, eng] **44-3452**
- Arctic corrosion and its effects on the strength of icebreakers. Brown, T.G., et al. [1990, p.S/1-S/11, eng] **44-3481**
- Compressive strength and deformation in fine-grained frozen soils. Joshi, R.C., et al. [1990, p.317-325, eng] **44-3677**
- Temperature and stresses of a cryo-turbogenerator rotor. Gontarevskii, P.D., et al. [1990, p.61-69, rus] **44-4351**
- Effect of stresses on technological strength of steels. Mikhailov, V.E., et al. [1990, p.150-153, rus] **44-4370**
- Stress-strain state in cylindrical pipes at low temperatures. Iuzevich, V.N., [1990, p.253-257, rus] **44-4393**
- See *fatigue*: Shear stress; Strength; Tensile properties; Thermal stresses
- Striations**
- Clast ploughing, lodgement and glacier sliding over a soft glacier bed. Clark, P.U., et al. [1989, p.201-207, eng] **44-944**
- See *fatigue*: Ice scoring
- Structural analysis**
- Analytical simulation of the composite ice wall. Corder, P.R., et al. [1989, p.174-180, eng] **44-1197**
- CCGS Louis S. St. Laurent mid-life modernization design studies. Kendrick, A., et al. [1988, p.129-135, eng] **44-1203**
- Effect of errors in estimating avalanche parameters. Andreev, I.U.B., et al. [1989, p.45-49, rus] **44-1570**
- NDT in cold regions: a review of the state-of-the-art of deflection testing. Coetzee, N.F., et al. [1989, p.198-209, eng] **44-1658**
- Variability of pavement layer moduli from NDT measurements. Rada, G.R., et al. [1989, p.346-357, eng] **44-1670**
- Full scale pavement test international joint research. Dumont, A.G., et al. [1989, p.370-375, eng] **44-1672**
- Lifetime of structures in cold regions. Oshima, T., et al. [1985, p.208-212, jpn] **44-2317**
- Clathrate polyhydrates of peralkylonium salts and their analogs. Diadin, I.U.A., et al. [1987, p.75-116, rus] **44-2426**
- Propulsion machinery concepts for icebreaking ships. Schmid, H., [1990, p.Q/1-Q/23, eng] **44-3479**
- Strength requirements in the proposed CASPPR. Daley, C.G., [1990, p.X/1-X/13, eng] **44-3485**
- Subdivision and stability for arctic vessels. Kendrick, A., [1990, p.Z/1-Z/6, eng] **44-3487**
- Structural study of H₂O clusters. Torchet, G., et al. [1989, p.245-260, eng] **44-3699**
- Structure of ice algal assemblages from the Gulf of St. Lawrence. De Sève, M.A., et al. [1990, p.780-788, eng] **44-3701**
- Diagrams of structural strength of steels with respect to cold brittleness. Vikulin, A.V., et al. [1990, p.51-56, rus] **44-4349**
- Low-temperature durability of welded steel joints. Kurkin, S.A., et al. [1990, p.125-126, rus] **44-4364**
- Structures**
- Snow-creep pressure on masts. Larsen, J.O., et al. [1989, p.154-158, eng] **44-565**
- Effect of boundary conditions and snow cover on snow creep. McClung, D.M., et al. [1989, p.175-179, eng] **44-569**
- Ground object spectral reflectance. Feng, X.Z., et al. [1988, p.146-151, chi] **44-645**
- Regional characteristics of snow damage in Japan. Yamada, T., et al. [1988, p.57-72, jpn] **44-732**
- Iceing of tall structures in the lowlands of the USSR. Glukhov, V.G., [1989, p.141p., rus] **44-761**
- Snow creep pressures. McClung, D.M., et al. [1989, p.33-47, eng] **44-828**
- Grain silos under snow loads. Khazra, A., [1990, p.598p., eng] **44-1484**
- Research on machines and structures suitable for cold regions. Larionov, V.P., [1986, p.139-150, eng] **44-1730**
- Development and design of sludge freezing beds. Martel, C.J., [1989, p.799-808, eng] **44-1759**
- Engineering-geocryological safeguarding of the building of structures. Mel'nikov, V.P., ed. [1989, p.135p., rus] **44-2144**
- Building structures on swelling clayey soils. Sorochan, E.A., [1989, p.309p., rus] **44-2404**
- Inventory of river training structures in shallow-draft waterways. Final report. Derrick, D.L., et al. [1989, p.36p., eng] **44-2652**
- Effects of temperature and magnetic field on structures. Dzenzerskii, V.A., et al. [1990, p.81-86, rus] **44-4355**
- Evaluation of scaling effect in low-cycle fatigue. Dobrovolskii, V.I., [1990, p.86-91, rus] **44-4356**
- Ice loads on harbor structures. Smirnov, G.N., et al. [1990, p.27, rus] **44-4480**
- See *fatigue*: Buildings; Concrete structures; Floating structures; Hydraulic structures; Inflatable structures; Offshore structures; Pile structures; Steel structures; Subsurface structures; Superstructures; Underground facilities; Under-snow facilities; Wooden structures
- Studs**
- See *fatigue*: Tires
- Styrofoam**
- See *fatigue*: Cellular plastics
- Subarctic landscapes**
- Wetland vegetation near Old Crow, northern Yukon. Ovenden, L., et al. [1989, p.954-960, eng] **44-1025**
- Wetlands of subarctic Canada. Zoltai, S.C., et al. [1988, p.55-96, eng] **44-1365**
- Soil nitrogen changes during primary succession on a floodplain in Alaska, U.S.A. Walker, L.R., [1989, p.341-349, eng] **44-2007**
- See *fatigue*: Subpolar regions
- Subglacial caves**
- Glacier outburst floods at Mount Rainier, Washington State, U.S.A. Driedger, C.L., et al. [1989, p.51-55, eng] **44-548**
- Possible radio-echo method of locating englacial and subglacial waterways. Kennett, M.I., [1989, p.135-139, eng] **44-562**
- Crevasses, seracs, moulins and cavities under glaciers. Reynaud, L., [1989, p.8-13, eng] **44-1243**
- Subglacial drainage**
- Subglacial meltwater discharge in a tidewater glacier environment. Pfirman, S.L., et al. [1989, p.265-281, eng] **44-218**
- Jökulhlaups from Strandline Lake, Alaska (especially the 1982 event). Sturm, M., et al. [1989, p.19p., eng] **44-395**
- Erosion of bedrock by subglacial meltwater, Cantley, Quebec. Sharpe, D.R., et al. [1989, p.1011-1020, eng] **44-434**
- Glacier-hydrological conditions on the Inland Ice. Thomsen, H.H., et al. [1988, 1 fold. map and text, eng] **44-487**
- Subglacial drainage and suspended sediment transport. Collins, D.N., [1989, p.45-50, eng] **44-547**
- Possible radio-echo method of locating englacial and subglacial waterways. Kennett, M.I., [1989, p.135-139, eng] **44-562**
- Changes of glacial hydrology at Austre Okstindbreen, Norway, 1976-87. Theakstone, W.H., et al. [1989, p.252-256, eng] **44-584**
- Glacier surveys for planning hydro-electric power, West Greenland. Thomsen, H.H., et al. [1989, p.257-261, eng] **44-585**
- Floods caused by a glacier-dammed lake at the Folgefonni ice cap, Norway. Tvede, A.M., [1989, p.262-264, eng] **44-586**
- Deposits in a small ice-dammed lake in Norway. Donnelly, R., et al. [1989, p.581-600, eng] **44-682**
- Analysis of suspended sediment in a proglacial stream. Fenn, C.R., et al. [1989, p.123-135, eng] **44-687**
- Sediment transport and deposition in a temperate glacial fjord, Glacier Bay, Alaska. Cowan, E.A., [1989, p.453p., eng] **44-963**
- Crevasses, seracs, moulins and cavities under glaciers. Reynaud, L., [1989, p.8-13, eng] **44-1243**
- Englacial and subglacial hydrology: a qualitative review. Hooke, R.L., [1989, p.221-233, eng] **44-1263**
- Hydrology of ice caps in volcanic regions. Björnsson, H., [1988, p.139p., eng] **44-1319**
- Jökulhlaups from ice-dammed lake in Greenland. Russell, A.J., [1989, p.157-162, eng] **44-1538**
- Striations produced by subglacial drainage in Norway. McCarroll, D., et al. [1989, p.193-196, eng] **44-1544**
- Denudation of glaciated and non-glaciated catchments. Kozłowski, A., et al. [1989, p.317-367, eng] **44-3056**
- Meltwater drainage from temperate glacial ice. Simmons, R.J., [1990, p.58p., eng] **44-3265**
- Subglacial water pressures and the shape of subglacial conduits. Hooke, R.L., et al. [1990, p.67-71, eng] **44-3723**
- Observations on the drainage of an ice-dammed lake in West Greenland. Russell, A.J., et al. [1990, p.72-74, eng] **44-3724**
- Glacier drainage system detected by dye-tracing experiments. Willis, I.C., et al. [1990, p.89-101, eng] **44-3727**
- Jökulhlaup involving a potholed glacier in AK. Sturm, M., et al. [1990, p.125-126, eng] **44-3731**
- Geochemistry of subglacial calcites: implications for the hydrology of the basal water film. Sharp, M., et al. [1990, p.141-152, eng] **44-4047**
- Drumlins, subglacial meltwater floods, and ocean responses. Shaw, J., [1989, p.853-856, eng] **44-4143**
- Drumlins, subglacial meltwater floods, and ocean responses—comment and reply. Kehew, A.E., et al. [1990, p.479-480, eng] **44-4144**
- Subglacial meltwater channels at Jones Ridge. Colhoun, E.A., et al. [1989, p.234-246, eng] **44-4289**
- Effect of water depth on glaciolacustrine sedimentation. Fyfe, G.J., [1990, p.147-164, eng] **44-4475**
- Subglacial navigation**
- Rapid thermal ice penetration system. Andersen, J.K., [1989, p.224-242, eng] **44-3149**
- Arctic Submarine Experimental Pool. Oblinger, L.P., [1989, p.244-248, eng] **44-3150**
- Subglacial observations**
- Late Weichselian/Devensian ice sheets in the North Sea and adjacent land areas. Nesje, A., et al. [1988, p.371-384, eng] **44-82**
- Drumlins—products of controlled or uncontrolled glaciodynamic response. Menzies, J., [1989, p.151-158, eng] **44-118**
- Effects of ice scour on marine algal assemblages. Heine, J.N., [1989, p.253-260, eng] **44-292**
- Glacier-hydrological conditions on the Inland Ice. Thomsen, H.H., et al. [1988, 1 fold. map and text, eng] **44-487**
- Theoretical and experimental analyses of glacial abrasion and quarrying. Iverson, N.R., [1989, p.240p., eng] **44-975**
- Analysis of central arctic noise events. Townsend-Manning, M., [1987, 186p., eng] **44-1079**
- Estimation of under-ice reflection variables. Livingston, E., et al. [1989, p.1909-1919, eng] **44-1320**
- Dynamics of the antarctic ice cap. Delecler, H., et al. [1989, 51p., eng] **44-1353**
- On the hydroacoustically inferred morphology of arctic ice. Papadakis, J.E., [1987, 48p., eng] **44-1505**
- Seismic studies on the Siple Coast, 1987-1988. Bentley, C.R., et al. [1988, p.54-55, eng] **44-1691**
- Arctic Ocean noise generation due to pack ice kinematics and heat fluxes. Lewis, J.K., et al. [1988, p.565-581, eng] **44-1711**
- Acoustic ambient noise in the Arctic Ocean below the marginal ice zone. Buckingham, M.J., et al. [1988, p.583-598, eng] **44-1712**
- Acoustic measurements and applications of kinetic impacts on ice. De Heering, P., [1987, p.611-617, eng] **44-1743**
- Low frequency attenuation in the Arctic Ocean. DiNapoli, F.R., et al. [1986, p.387-395, eng] **44-1744**
- Geomorphology and glaciology of second highest dome in Queen Maud Land. Ageta, Y., et al. [1989, p.88-96, eng] **44-1805**
- Basal ice formation and deformation: a review. Hubbard, B., et al. [1989, p.529-558, eng] **44-2094**
- Streamflow measurement under winter ice conditions in Manitoba. Pelletier, P.M., [1989, p.1857-1867, eng] **44-2124**
- Glacial geomorphological research at Myrdalsjökull, Iceland, 1977-86. I: The northern margin. Krüger, J., [1988, p.68-77, eng] **44-2578**
- Developments in ice stations of the US and other NATO countries. Stoliarov, N., [1989, p.72-73, rus] **44-2627**
- Vertical structure and dynamics of the ocean's subglacial layer. Timokhov, L.A., ed. [1989, 141p., rus] **44-2628**
- Temperature and salinity staircases in the northwestern Weddell Sea. Muench, R.D., et al. [1990, p.295-306, eng] **44-2792**
- Large scale bottom topography survey from ice approaching Molodetzhnaya Station. Kniazev, I.U.A., [1989, p.108-114, rus] **44-3074**
- Boundary layer under fast ice. Shirasawa, K., et al. [1989, p.90-102, jpn] **44-3128**
- Arctic ocean acoustics in CEAREX. Baggeroer, A.B., [1989, p.2-3, eng] **44-3133**
- Measurement of acoustic pulses propagated through arctic internal waves. Ewart, T.E., et al. [1990, p.129-139, eng] **44-3286**
- Are backscatter features from the Malaspina Glacier surface expressions of subglacial morphology. Molnia, B.F., et al. [1989, p.701-710, eng] **44-3714**
- Sub-ice springmelt water circulation in a small lake. Roberge, J., et al. [1989, p.298-302, eng] **44-4031**
- Atmospheric barometer measures arctic sea surface height. Smith, T.E., [1990, p.43-46, eng] **44-4146**
- Geostatistics in the glaciology of Queen Maud Land. Herzfeld, U.C., et al. [1990, p.107-110, eng] **44-4172**
- Subglacial meltwater channels at Jones Ridge. Colhoun, E.A., et al. [1989, p.234-246, eng] **44-4289**
- Internal waves under arctic pack ice: the coherence structure. Levine, M.D., [1990, p.7347-7357, eng] **44-4473**
- Subgrade preparation**
- Geosynthetic reinforcement of paved road embankments on polygonal ground. Kinney, T.C., et al. [1990, p.102-112, eng] **44-4490**
- Subgrade soils**
- Soil suction monitoring for roads and airfields. Fredlund, D.G., [1989, p.24-39, eng] **44-1640**
- Temperature and thaw depth monitoring of pavement structures. Esch, D.C., [1989, p.78-86, eng] **44-1645**
- Determination of frost penetration by soil resistivity measurements. Atkins, R.T., [1989, p.87-100, eng] **44-1646**
- Subgrades**
- Subgrade freezing rate. Miglachenko, V.P., [1989, p.91-95, rus] **44-1502**
- Iowa Department of Transportation pavement instrumentation. Dankbar, R., [1989, p.304-307, eng] **44-1666**
- Direct comparison of nondestructive, laboratory, and in situ testing. Anderson, M., et al. [1989, p.310-319, eng] **44-1667**
- Layer moduli and runway overlay design, Kodiak Airport, Alaska. Vinson, T.S., et al. [1989, p.334-345, eng] **44-1669**

Subgrades (cont.)

- Variability of pavement layer moduli from NDT measurements. Rada, G.R., et al. [1989, p.346-357, eng] **44-1670**
- Minnesota cold regions pavement test facility. Newcomb, D.E., et al. [1989, p.360-369, eng] **44-1671**
- Experience of pavement instrumentation at TRRL. Addis, R.R., [1989, p.385-393, eng] **44-1674**
- Construction of fully instrumented test pavements in North Carolina. Stubbard, R.N., et al. [1989, p.394-401, eng] **44-1675**
- Thermal stabilization of permafrost with thermosyphons. Zarling, J.P., et al. [1990, p.323-328, eng] **44-2242**
- Resilient properties of Arkansas subgrades. Final report. Elliott, R.P., et al. [1988, 116p., eng] **44-2814**
- Features of ballasting and straightening of railroad tracks. Lykov, V.G., et al. [1990, p.5-6, rus] **44-4482**
- See *also*: Foundations; Pavement bases; Permafrost bases; Roadbeds

Sublimation

See *also*: Evaporation; Ice sublimation; Snow evaporation

Submarine geology

See *also*: Marine geology

Submarine permafrost

See *also*: Subsea permafrost

Submarine topography

See *also*: Bottom topography; Ocean bottom

Submarines

- Conquest of the North Pole and current maritime and air transportation problems. Malaurie, J., ed. [1987, 385p., eng] **44-596**
- Submarine exploration of the North Pole region. Lyon, W.K., [1987, p.313-328, eng] **44-602**
- Arctic submarine. McLaren, A.S., [1987, p.329-341, eng] **44-603**
- Submarine warfare in the Arctic: option or illusion. Sakitt, M., [1988, 93p., eng] **44-823**
- Proceedings. [1989, 475p., eng] **44-3132**
- Cost-effective ice penetrator. Thomas, E.V., et al. [1989, p.141-149, eng] **44-3145**
- Ice penetrator development program. Ferrario, M.T., [1989, p.186-222, eng] **44-3148**
- Rapid thermal ice penetration system. Andersen, J.K., [1989, p.224-242, eng] **44-3149**
- Arctic Submarine Experimental Pool. Oblinger, L.P., [1989, p.244-248, eng] **44-3150**
- Proposed tactical investigation of a model arctic submarine. Richardson, C., [1989, p.249-259, eng] **44-3151**
- Ice strength estimates from submarine topsounder data. DiMarco, R., et al. [1989, p.425-426, eng] **44-3160**
- Ice thickness measurement. Wallerstedt, R., [1989, p.427-450, eng] **44-3161**

Submerged ice

See *also*: Underwater ice

Subpermafrost ground water

- Ground water runoff in the active water transfer zone in cryohydrogeological structures. Afanassenko, V.E., et al. [1989, p.3-13, rus] **44-143**
- Water on Mars. Carr, M.H., [1987, p.374-375, eng] **44-1414**
- Ground water in permafrost zones. Grodzinski, V.D., [1989, p.92-103, rus] **44-3490**
- Deep penetration of permafrost through saturated ground. Kelly, R.J., et al. [1990, p.9-27, eng] **44-3537**
- Permafrost and lakes in the Mackenzie Delta. Marsh, P., [1990, p.131-136, eng] **44-3654**

Subpolar regions

- Ice effects in tidal marsh development in Quebec, Canada. Dionne, J.C., [1989, p.171-210, eng] **44-3273**
- See *also*: Subarctic landscapes

Subsea permafrost

- Geological and geotechnical conditions of the Beaufort Sea coastal zone, arctic Canada. Kurfurst, P.J., et al. [1989, p.121-129, eng] **44-46**
- Role of gas hydrates in the cryolithogenesis of marine deposits. Romanovskii, N.N., et al. [1988, p.1-12, eng] **44-593**
- Copper sulfates from cryogenic zone of hypergenesis of the Udonak deposit. IAKhontova, L.K., et al. [1988, p.38-43, eng] **44-594**
- Permafrost distribution and Quaternary history of Mackenzie Delta. Judge, A.S., [1986, p.41-45, eng] **44-781**
- Morphogenetic classification of tidal marsh pans in northern Quebec. Fournier, A., et al. [1987, p.47-64, fre] **44-897**
- Characteristics of the active layer and shallow subsea permafrost. Osterkamp, T.E., et al. [1989, p.16-227, 16,236, eng] **44-1109**
- Cryogenic scanning electron microscopy in the Arctic and Antarctic. Lilly, M.R., et al. [1990, p.51-60, eng] **44-2206**
- Solute redistribution during soil freezing. Van Loon, W.K.P., et al. [1990, p.186-194, eng] **44-2982**
- Planning and execution of a 500 m corehole through offshore permafrost. Ruffel, J.P., et al. [1990, p.271-282, eng] **44-3672**
- Salt fingering in subsea permafrost. Gosink, J.P., et al. [1990, p.9575-9583, eng] **44-4334**

Subsurface drainage

- New Alaskan road beats drainage problems. Groves, J., [1989, p.88-89, eng] **44-1513**
- Role of seawater freezing in the formation of subsurface brines. Herut, B., et al. [1990, p.13-21, eng] **44-1769**
- Tunnels formed below snow. Uematsu, T., [1986, p.611-615, jpn] **44-2507**
- Discharge and sediment-load characteristics of the Hilda rock-glacier stream, Canadian Rocky Mountains, Alberta. Bajewsky, I., et al. [1989, p.295-306, eng] **44-2634**
- Satellite-supported methods for studying ice fields and underground water in the Eastern Pamirs. Topchiev, A.G., [1990, p.943-960, eng] **44-3965**
- Burial of industrial wastes from gas production. Sevast'ianov, O.M., [1989, p.152-160, rus] **44-4528**
- Subsurface investigations**
- Water contributions during snowmelt in a small watershed. McDonnell, J.J., et al. [1987, p.257-266, eng] **44-1867**
- Radar study of active layer thicknesses in wet tundra in AK. Doolittle, J.A., et al. [1990, p.175-182, eng] **44-4050**

Subsurface structures

- Behaviour of two kinds of ground freezing: laboratory tests and case histories. Thimus, J.F., et al. [1989, p.577-578, eng] **44-942**
- Frost data in the Pacific Northwest. Molnau, M., et al. [1990, p.286-289, eng] **44-2996**
- Extremal estimates in the theory of freezing of filtering soils. Kornev, G.K., [1990, p.569-574, eng] **44-3580**
- Constraints on the subsurface structure of Europa. Golombek, M.P., et al. [1990, p.441-452, eng] **44-3581**
- Technology transfer. [1989, p.42, eng] **44-3789**
- Buried snowbank ice in the central and northern Yukon Territory. Pollard, W.H., [1989, p.292-297, eng] **44-4030**

See *also*: Underground facilities

Sunlight

- Snow cover spectral reflection properties in sunlight. Gunther, T., [1990, p.50-54, ger] **44-3775**

Sunshine

See *also*: Insolation

Supercooled clouds

- Interaction of polycrystalline ice spheres with ice crystals. Klimin, N.N., et al. [1988, p.126-129, rus] **44-68**
- Calibration of a wire device for measuring supercooled liquid water. Hill, G.E., [1989, p.961-970, eng] **44-2189**
- Vapor pressures of supercooled HNO₃/H₂O solutions. Hanson, D.R., [1990, p.421-423, eng] **44-3424**
- Vertical wind shear and artificial crystallization of clouds. Bakhanov, V.P., et al. [1989, p.3-11, rus] **44-4224**
- Dissipation of supercooled stratiform clouds by pyrotechnics. Voronov, G.S., [1989, p.31-38, rus] **44-4228**

Supercooling

- Effects of curing temperature and early freezing on the pull-out behavior of steel fibres. Bantia, N., et al. [1989, p.400-410, eng] **44-38**
- Winter ecology. Schmid, W.D., [1986, p.335-340, eng] **44-278**
- Structural study of deeply supercooled water. Bellissent-Funel, M.C., et al. [1989, p.7123-7129, eng] **44-766**
- Time estimation for maximum supercooling in dynamic frazil ice formation. Daly, S.F., et al. [1989, 13p., eng] **44-776**
- Ice segregation on a microporous filter. Ozawa, H., et al. [1989, p.567-568, eng] **44-938**
- Supercooling solidification of liquid droplets: aqueous solution of NaCl. Ichimiya, K., et al. [1984, p.37-42, jpn] **44-1326**
- Solidification of supercooled liquid droplets—aqueous solution of NaCl. Ichimiya, K., et al. [1985, p.83-98, eng] **44-1336**
- Supercooled water on a heat transfer surface. Saito, A., et al. [1988, p.207-217, jpn] **44-1367**
- Fresh water from the sea, a new process. Maguire, J.B., [1987, p.155-162, eng] **44-1789**
- Nucleation on cylindrical nuclei. Knight, C.A., et al. [1987, p.599-601, eng] **44-1791**
- Cold tolerance of microarthropods. Cannon, R.J.C., et al. [1988, p.23-77, eng] **44-1884**
- Influence of surface characteristics of metal oxides on heterogeneous nucleation. Model of ice formation from supercooled water. Gorbunov, B.Z., et al. [1989, p.231-236, rus] **44-2568**
- Velocity effects in unstable solidification. Strain, J., [1990, p.1-15, eng] **44-3165**
- Some remarks on the regularization of supercooled one-phase Stefan problems in one dimension. Fasano, A., et al. [1990, p.153-168, eng] **44-3309**
- Improved integral equation for supercooled liquids. Kamayashi, S., et al. [1990, p.1990-1996, eng] **44-3622**
- Raman spectroscopic study of bulk water supercooled to -33°C. Hare, D.E., et al. [1990, p.25-33, eng] **44-3966**

Supersaturation

- Ice-water saturation adjustment. Tao, W.K., et al. [1989, p.231-235, eng] **44-264**

Superstructures

- Ship icing from sea spray. Zakrzewski, W.P., et al. [1988, p.591-603, eng] **44-1176**
- Forecasting of superstructure icing for Alaskan waters. Feit, D.M., [1987, p.5-10, eng] **44-2084**

Supplies

See *also*: Logistics

Supports

- Pressure of an ice field on vertical supports during horizontal movements. Matskevich, D.G., et al. [1990, p.110-114, eng] **44-3168**
- Ice loads on multi-pile supports. Afanas'ev, V.P., [1990, p.28-29, rus] **44-4481**
- See *also*: Pipeline supports; Power line supports

Suprapermafrost ground water

- Geocryological-hydrogeological studies of free water transfer zones. Piguzova, V.M., ed. [1989, 160p., rus] **44-142**
- Ground water runoff in the active water transfer zone in cryohydrogeological structures. Afanassenko, V.E., et al. [1989, p.3-13, rus] **44-143**
- Formation of the thermal regime of a talik above permafrost. Varlamov, S.P., et al. [1989, p.38-47, rus] **44-147**
- Compiling a map of suprapermafrost ground water in Yakutsk ASSR. Tolstikhin, O.N., et al. [1989, p.125-132, rus] **44-158**
- Mapping suprapermafrost ground water in loose deposits of plains. Ponomareva, O.E., [1989, p.132-139, rus] **44-159**
- Using water from suprapermafrost taliks for water supply of oil deposits. Burchak, T.V., et al. [1989, p.36-47, rus] **44-1255**

Surface drainage

- Changes in stream hydrochemistry during spring snowmelt in Norway. Fernier, R.C., et al. [1989, p.321-337, eng] **44-267**
- On the generation of stream runoff in till soils. Rodhe, A., [1989, p.1-8, eng] **44-375**
- Glacier-hydrological conditions on the Inland Ice. Thomsen, H.H., et al. [1988, 1 fold. map and text, eng] **44-487**
- Hydrology of small tributary streams in a subarctic wetland. Woo, M.K., et al. [1989, p.1557-1566, eng] **44-1010**
- Substrate freeze-thaw in a drained Alberta fen. Swanson, L.E., et al. [1989, p.1024-1029, eng] **44-1268**
- Denudation of glaciated and non-glaciated catchments. Kostrzewski, A., et al. [1989, p.317-367, eng] **44-3056**
- Jökulhlaup involving a potholed glacier in AK. Sturm, M., et al. [1990, p.125-126, eng] **44-3731**
- Hydraulic model of overland flow on grass covered slopes. Adrian, D.D., et al. [1989, p.569-578, eng] **44-3744**
- Influence of summertime precipitation events on meltwater production in the Karakoram, northern Pakistan. Wake, C.P., [1989, p.28-35, eng] **44-3996**

Surface effect vehicles

See *also*: Air cushion vehicles

Surface energy

- Year-to-year instability of the Mars south polar cap. Jakosky, B.M., et al. [1990, p.1359-1365, eng] **44-2287**
- Role of land ice and snow in climate. Kuhn, M.H., [1989, p.17-28, eng] **44-2782**
- Surface energy balance near an antarctic ice shelf front. Heinemann, G., et al. [1990, p.123-158, eng] **44-3527**
- Comparison of melt energy computations and ablatometer measurements on melting ice and snow. Munro, D.S., [1990, p.153-162, eng] **44-4048**

Surface properties

- Investigation of surface water behavior during glaze ice accretion. Hansman, R.J., Jr., et al. [1989, p.140-147, eng] **44-5**
- Microwave emission properties of subzero underlying surfaces. Kondrat'ev, K.I.A., et al. [1989, p.67-70, rus] **44-180**
- Estimating ocean wave spectra by SAR. Tilley, D.G., [1989, p.483-491, eng] **44-402**
- Airborne SAR observations of ocean surface waves penetrating floating ice. Raney, R.K., et al. [1989, p.492-500, eng] **44-403**
- Implications of ice surface features for SAR backscatter signatures. Drinkwater, M.R., [1989, p.501-513, eng] **44-404**
- Use of a new high-speed digital data acquisition system in airborne ice-sounding. Wright, D.L., et al. [1989, p.561-567, eng] **44-410**
- Infrared remote sensing in permafrost. Liang, F.X., et al. [1988, p.106-119, chi] **44-642**
- Friction panel measurements in icebreaking ship tests. Liukkonen, S., [1989, p.251-253, eng] **44-1198**
- Freezing heat-transfer characteristics in a bent pipe. Tago, M., et al. [1988, p.215-224, eng] **44-1418**
- Production and storage of ice for cooling buildings. Wubben, E.A., et al. [1989, p.338-344, eng] **44-1525**
- Test to determine concrete resistance to ice abrasion. Nawwar, A.M., et al. [1988, p.401-426, eng] **44-1739**
- Fresh water from the sea, a new process. Maguire, J.B., [1987, p.155-162, eng] **44-1789**
- Melting of ice in silica pores. Drost-Hansen, W., et al. [1989, p.1439-1441, eng] **44-1858**

- Contrast between glacially crushed quartz transported by mountain or by continental ice. Clark, P.U., et al, 1989, p.1195-1205, eng 44-2277
- Evidence for residual CO₂ frost on the Martian south polar cap. Paige, D.A., et al, 1990, p.1319-1335, eng 44-2284
- Color and albedo of the south polar layered deposits on Mars. Herkenhoff, K.E., et al, 1990, p.1343-1358, eng 44-2286
- Natural cairns on rock glaciers as an indication of a solid ice core. Humlum, O., 1988, p.78-82, eng 44-2579
- Estimation of properties of firn snow from Landsat Thematic Mapper. Dozier, J., 1989, p.207-215, eng 44-2596
- Review of signature studies for microwave remote sensing of snowpacks. Mätzler, C., et al, 1989, p.253-265, eng 44-2599
- Microwave radiometry of snow. Hallikainen, M.T., 1989, p.267-275, eng 44-2600
- Microwave signatures of bare soil. Wegmüller, U., et al, 1989, p.307-316, eng 44-2604
- Simple method for modeling the frost formation phenomenon in different geometries. Padki, M.M., et al, 1989, p.1127-1137, eng 44-3035
- Influence of vibration on the kinetic friction between plastics and ice. Lehtovaara, A., 1987, p.131-138, eng 44-3196
- Macromodel for road surface conditions during wintertime: initial results. Möller, S., 1989, 42p.+ap., swe 44-3200
- Size aspects of ice active bacteria nucleation sites. Burke, M.J., et al, 1990, p.81-84, eng 44-3308
- Surface melting. Frenken, J.W.M., 1990, p.2-7, eng 44-3574
- See *also*: Glacier surfaces; Ice surface; Microrelief; Snow surface
- Surface roughness**
- Radar backscattering from artificially grown sea ice. Bredow, J., et al, 1989, p.259-264, eng 44-8
- Calculation of flow over iced airfoils. Cebeci, T., 1989, p.853-861, eng 44-400
- Measurement of the path-averaged turbulent surface heat flux. Andreas, E.L., 1988, p.219-220, eng 44-421
- Fractal dimension: a descriptor of ice keel surface roughness. Bishop, G.C., et al, 1989, p.1007-1010, eng 44-468
- Flow of artificial avalanches. Lang, R.M., et al, 1989, p.146-153, eng 44-564
- Effects of environmentally imposed roughness on airfoil performance. Cebeci, T., 1987, 43p., eng 44-1316
- Spreadsheet analysis of hailstone thermodynamics. List, R., 1989, p.1118-1127, eng 44-1514
- Investigation of radar characteristics of fresh-water ice sheets. Kondrat'ev, K.I.A., et al, 1988, p.6-8, eng 44-1559
- Iowa Department of Transportation weigh-in-motion. McCall, B., 1989, p.286-295, eng 44-1664
- Surface roughness and bulk heat transfer on a glacier: comparison with eddy correlation. Munro, D.S., 1989, p.343-348, eng 44-1895
- Determination of the resistance of the underside of ice cover. Majewski, W., et al, 1989, p.152-167, eng 44-2032
- Convective heat measurements from a NACA 0012 airfoil. Poinsett, P.E., et al, 1990, 20p., eng 44-2811
- SAR image statistics related to atmospheric drag over sea ice. Burns, B.A., 1990, p.158-165, eng 44-3011
- Processes determining the bottom topography of multiyear arctic sea ice. Wadhams, P., et al, 1990, p.136-141, eng 44-3837
- Fractal description of ice keel small-scale surface roughness. Bishop, G.C., et al, 1990, p.141-145, eng 44-3838
- Small-scale under-ice morphology study in the high Arctic. Connors, D.N., et al, 1990, p.145-151, eng 44-3839
- See *also*: Roughness coefficient
- Surface structure**
- Ice accretion on a cylinder in cold air with seawater spray. Fukusako, S., et al, 1988, p.981-988, eng 44-1377
- Active patterned ground at sea level, Fourchu, Nova Scotia, Canada. Mooers, H.D., et al, 1989, p.425-432, eng 44-2012
- Particle impact of frozen surfaces with subsequent particle wind-entrainment. Neuman, C.M., 1989, p.1007-1015, eng 44-2093
- Climatic change and permafrost: record from surficial deposits. Carter, L.D., 1990, p.43-53, eng 44-3390
- Compaction and internal structure of Mimas. Eluszkiewicz, J., 1990, p.215-225, eng 44-3599
- Subglacial water pressures and the shape of subglacial conduits. Hooke, R.L., et al, 1990, p.67-71, eng 44-3721
- Surface temperature**
- Infrared snow cover detection by warming of sea ice/snow surface. Ikeda, M., 1989, p.552-560, eng 44-409
- Surface layer temperature records above sea ice and open water. Hoerber, H., 1989, p.293-297, eng 44-412
- Effects of subcooling on melting on a vertical wall. Okada, M., et al, 1988, p.36-68, eng 44-688
- Mapping freeze/thaw boundaries with SMMR data. Zuerndorfer, B.W., et al, 1989, 28p., eng 44-713
- Frost growth in cylindrical tubes located outdoors. Monaghan, P.F., et al, 1988, p.963-972, eng 44-1375
- Effects of free convection on steady state freezing in a porous medium-filled cavity. Oosthuizen, P.H., 1988, p.321-327, eng 44-1415
- Mathematical model of frost formation on a flat plate. Sherif, S.A., et al, 1988, p.301-306, eng 44-1421
- Hydrophysical processes in the sea surface layer. Vasilenko, V.M., et al, 1987, p.63-66, rus 44-1595
- How Ionic meteorology is influenced by surface frosts. Ingervoll, A.P., 1989, p.298-313, eng 44-1953
- Frost shattering implications of rock temperatures in alpine environments. Coutard, J.P., et al, 1989, p.399-416, eng 44-2011
- Preliminary cruise report of USNS Bartlett to the Greenland Sea, 1989. Bourke, R.H., et al, 1989, 36p., eng 44-2041
- Technology of industrial construction using cast-in-situ concrete. Ataev, S.S., 1989, 335p., rus 44-2075
- Annual and diurnal variation in radiation balance of ground surface at Kitami. Sado, K., et al, 1988, p.579-584, jpn 44-2731
- Fluctuation of Northern Hemisphere snow and ice cover and climate. Tsuchiya, I., 1990, p.89-94, eng 44-3548
- SST in polynyas: a case study. Schluessell, P., et al, 1990, p.933-945, eng 44-4142
- Annual surface temperature and mass balance. Fortuin, J.P.F., et al, 1990, p.78-84, eng 44-4166
- Surface tension**
- See *also*: Interfacial tension
- Surface waters**
- Chemical characteristics of natural water. Hem, J.D., 1989, 264p., eng 44-798
- Experimental project No. 12: concrete pavement drainage rehabilitation. Kelly, R.C., 1989, p.74-75, eng 44-1644
- Water contributions during snowmelt in a small watershed. McDonnell, J.J., et al, 1987, p.257-266, eng 44-1867
- Landscapes-geochemical analysis of frozen-taiga geosystems. Shchetnikov, A.I., 1989, 127p., rus 44-2068
- New directions for surface water modeling. Kavvas, M.L., ed, 1989, 444p., eng 44-2190
- Recharge-discharge function of wetlands pt.2. Siegel, D.I., 1988, p.580-586, eng 44-3878
- Effect of a hydroelectric power plant on ice conditions. Filippov, A.M., 1989, p.95-101, rus 44-4409
- Surfactants**
- Using bleach mixture for decontamination at low temperatures. Walsh, M.E., et al, 1989, 13p., eng 44-2110
- Surging glaciers**
- See *also*: Glacier surges
- Surveys**
- Snow budgets stable, PR efforts up, survey shows. Kuennen, T., 1989, p.40-46, 58, eng 44-767
- Snowfighting plan a must for safe, successful winter. Patyk, S., comp, 1989, p.56-57, eng 44-770
- Planning engineering surveys in the cryolithozone using preliminary study results. Khristalev, L.N., et al, 1990, p.96-103, rus 44-4537
- See *also*: Aerial surveys; Electromagnetic prospecting; Exploration; Geodetic surveys; Geological surveys; Geophysical surveys; Glacier surveys; Ice surveys; Infrared reconnaissance; Magnetic surveys; Mapping; Oceanographic surveys; Photogrammetric surveys; Photographic reconnaissance; Route surveys; Seismic surveys; Site surveys; Snow surveys; Soil surveys; Topographic surveys
- Survival**
- Lichen mortality due to late-lying snow: results of a transplant study. Benedict, J.B., 1990, p.81-89, eng 44-2663
- See *also*: Cold weather survival; Viability
- Suspended sediments**
- Use of SPOT HRV data in the Corps of Engineers dredging program. Merry, C.J., et al, 1988, p.1295-1299, eng 44-435
- Grazing and sedimentation of ice algae during and immediately after a bloom at the ice-water interface. Tremblay, C., et al, 1989, p.291-300, eng 44-479
- Sediment transport by meltwater streams. Bezing, A., et al, 1989, p.1-5, eng 44-537
- Glacial sediment and hydro-electric power. Bogen, J., 1989, p.6-11, eng 44-538
- Subglacial drainage and suspended sediment transport. Collins, D.N., 1989, p.45-50, eng 44-547
- Errors in rating of suspended sediment transport during ablation seasons. Fenn, C.R., 1989, p.64-68, eng 44-550
- Freeze front effects on sediment distribution in seawater-slurry ice slurries. Clayton, J.R., Jr., et al, 1990, p.145-151, eng 44-2399
- Discharge and sediment-load characteristics of the Hilda rock-glacier stream, Canadian Rocky Mountains, Alberta. Bajewsky, I., et al, 1989, p.295-306, eng 44-2635
- Water and suspended solids discharge during snowmelt. Chacho, E.F., Jr., 1990, p.167-173, eng 44-3659
- Suspended-matter scavenging by rising frazil ice. Reimnitz, E., et al, 1990, p.97-100, eng 44-3826
- Wave-induced sediment enrichment in coastal ice covers. Shen, H.T., et al, 1990, p.100-102, eng 44-3827
- Sediment in Eurasian arctic sea ice. Wollenburg, I., et al, 1990, p.102-106, eng 44-3828
- Sediment pellets on sea ice. Barnes, P.W., et al, 1990, p.106-108, eng 44-3829
- Sediment transport in freshwater- and seawater-slurry ice slurries. Clayton, J.R., Jr., et al, 1990, p.111-114, eng 44-3831
- Swamps**
- Characteristics of the interaction of pipelines with frozen ground. Baglial, R.D., et al, 1989, p.37-39, rus 44-95
- Problems in hydrological exploration of West Siberian swamplands. Novikov, S.M., 1988, p.108-118, rus 44-100
- Over-winter chemistry of subarctic fens, eastern Canada. Kingsbury, C.M., et al, 1989, p.97-108, eng 44-115
- Morphogenetic classification of tidal marsh pans in northern Quebec. Fournier, A., et al, 1987, p.47-64, fre 44-897
- Hydrology of small tributary streams in a subarctic wetland. Woo, M.K., et al, 1989, p.1557-1566, eng 44-1010
- Wetland vegetation near Old Crow, northern Yukon. Ovenden, L., et al, 1989, p.954-960, eng 44-1025
- Substrate freeze-thaw in a drained Alberta fen. Swanson, L.E., et al, 1989, p.1024-1029, eng 44-1268
- Wetlands of Canada, 1988, 452p., eng 44-1363
- Wetlands of arctic Canada. Tarnocai, C., et al, 1988, p.27-53, eng 44-1364
- Wetlands of subarctic Canada. Zoltai, S.C., et al, 1988, p.55-96, eng 44-1365
- Interrelations of forest and swamp in a taiga zone. Glebov, F.Z., 1988, 182p., rus 44-1719
- Ice effects in tidal marsh development in Quebec, Canada. Dionne, J.C., 1989, p.171-210, eng 44-3273
- Forest reclamation and swamps in Karelia. Orlov, E.D., 1988, p.44-59, rus 44-3705
- Recharge-discharge function of wetlands Pt.1. Siegel, D.I., 1988, p.427-434, eng 44-3877
- Recharge-discharge function of wetlands pt.2. Siegel, D.I., 1988, p.580-586, eng 44-3878
- Ecosystems development in a coastal lowland of the Canadian High Arctic. Bliss, L.C., et al, 1990, p.165-174, eng 44-4113
- Seasonal cryogenic rock in the Siberian Uvaly Marshes. Skorbin, N.A., 1990, p.45-50, rus 44-4299
- Sweden**
- Arctic research programs in Sweden. Kommel, R., 1989, p.31-38, eng 44-127
- Significance of ice-covers for planktonic algae. Müller-Haeckel, A., et al, 1989, p.174-177, eng 44-323
- Geological aspects of episodic permafrost expansion. Kullman, L., 1989, p.255-262, eng 44-2626
- Simulation of runoff and nitrate transport from mixed basins in Sweden. Brandt, M., 1990, p.13-34, eng 44-3982
- Sedimentology and depositional environments of the Lund Diamict, southern Sweden.** Persson, K.M., et al, 1990, p.181-199, eng 44-4477
- Gotland**
- Ice-pushed boulders on the shores of Gotland, Sweden. Philip, A.L., 1990, p.661-676, eng 44-4487
- Rinkofjella Glacier**
- Sensitivity of a small icecap to climatic fluctuations. Rosqvist, G., et al, 1989, p.99-103, eng 44-111
- Scania**
- Ice-wedge casts in an early deglaciated area of southern Sweden. Svensson, H., 1987, p.12-18, eng 44-2583
- Storglaciären**
- Strain and surface tilt on Storglaciären, Sweden. Jansson, P., et al, 1989, p.201-208, eng 44-1546
- Seasonal variations in surface velocity of Storglaciären. Hooke, R.L., et al, 1989, p.235-247, eng 44-1551
- Cold surface layer on Storglaciären. Holmlund, P., et al, 1989, p.241-244, eng 44-2624
- Tarfala**
- Glacier study course in Tarfala. Seppälä, M., 1989, p.252-258, fin 44-2747
- Värmland**
- Younger Dryas-Preboreal moraines and deglaciation in southwestern Värmland, Sweden. Lundqvist, J., 1988, p.301-316, eng 44-80
- Switzerland**
- Avalanches and avalanche prevention. Fersman, A.E., 1989, p.230-234, rus 44-359
- Alps**
- Hour-to-hour snowmelt rates and lysimeter outflow during an entire ablation period. Martinec, J., 1989, p.19-28, eng 44-168
- Risks from glacier hazards in the Swiss Alps. Haeblerli, W., et al, 1989, p.96-102, eng 44-555
- Snow and avalanches in the Swiss Alps, winter 1987-88. 1989, 156p., ger 44-2112
- Facies model for deglaciation in an alpine valley. Pugin, A., 1989, p.235-248, eng 44-2391
- Analyses of permafrost cores from an alpine rock glacier. Haeblerli, W., ed, 1990, 38p., eng 44-4131
- Isotopic evidence of climatic change in a Swiss glacier. Lorrain, R., et al, 1990, p.168-171, eng 44-4186

Switzerland (cont.)

—Glacier de Tsanfleuron

- Geochemistry of subglacial calcites: implications for the hydrology of the basal water film. Sharp, M., et al. (1990, p.141-152, eng) 44-4047

—Gornergletscher

- Subglacial drainage and suspended sediment transport. Collins, D.N., (1989, p.45-50, eng) 44-547

—Tsidjore Nouve Glacier

- Analysis of suspended sediment in a proglacial stream. Fenn, C.R., et al. (1989, p.123-135, eng) 44-687

—Unteraargletscher

- Glacial reservoir and flooding the tongue of a glacier. Funk, M., et al. (1989, p.76-81, eng) 44-552

Symposia

See *also*: Meetings

Synoptic meteorology

- Modes of synoptic development within the Polar Basin. LeDrew, E.F., (1989, p.79-85, eng) 44-299

- Interannual variations of ice conditions in the Bellingshausen Station area. Janes, A.V., (1989, p.97-103, rus) 44-3073

Synthetic

See *also*: Artificial

Taiga

- Temperature regime of frozen soils on burns in northern Yakutia. Stepanov, G.M., (1988, p.76-82, eng) 44-222

- Groundwater regime and runoff in forests and swamps in Siberia. Konstantinov, V.D., (1986, p.10-16, eng) 44-316

- Interrelations of forest and swamp in a taiga zone. Glebov, F.Z., (1988, 182p., rus) 44-1719

- Effects of forests on snow reserves and snow melting. Rubtsov, M.V., et al. (1986, p.8-13, eng) 44-1731

- Thermal regime of the soils near the northern Yenisei. Skriabin, P.N., et al. (1989, 175p., rus) 44-1854

- Effect of fires on some hydrophysical properties of soils. Tarabukina, V.G., et al. (1988, p.86-91, rus) 44-1900

- Landscape-geochemical analysis of frozen-taiga geosystems. Shehtnikov, A.I., (1989, 127p., rus) 44-2068

- Soil freezing in the taiga zone of the European USSR. Rubtsov, M.V., et al. (1989, p.116-122, eng) 44-3252

- Geobotanical regionalization of the non-chernozem zone of the European RSFSR. Aleksandrova, V.D., et al. (1989, 64p., rus) 44-3577

Taliks

- Spatial facies of a group of pingo remnants on the southeast Frisian till plateau (the Netherlands). Van der Meulen, S., (1988, p.61-74, eng) 44-47

- Formation of the thermal regime of a talik above permafrost. Varlamov, S.P., et al. (1989, p.38-47, rus) 44-147

- Predicting changes in thickness of seasonal freezing of rocks. Seregina, N.V., et al. (1988, p.70-75, eng) 44-470

- Using water from suprapermafrost taliks for water supply of oil deposits. Burchak, T.V., et al. (1989, p.36-47, rus) 44-1255

- Permafrost formation in Huola River basin, North Da Hinggan Ling. Guo, D.X., et al. (1989, p.215-222, chi) 44-2416

- Unfrozen saline soils in permafrost along a river. Arc, F.E., et al. (1990, p.60-67, rus) 44-4302

Talus

- Talus fabric and particle morphology on Lassen Peak, California. Pérez, F.L., (1989, p.43-57, eng) 44-108

- Rock glacier dynamics in the Tian Shan Mountains. Cui, Z.J., et al. (1989, p.1286-1291, eng) 44-494

- Surface movement of a rock glacier, Tian Shan, China. Zhu, C., (1989, p.82-88, chi) 44-654

- Movement of debris on a high Andean talus. Pérez, F.L., (1988, p.77-99, eng) 44-692

- Debris accumulation patterns on talus slopes in Surprise Valley, Alberta. Luckman, B.H., (1988, p.247-278, eng) 44-1030

- Geomorphic processes on scree slopes during winter in Gaspésie, Quebec. Heu, B., et al. (1989, p.389-406, fre) 44-2065

- Characteristics of the movement of talus in a periglacial region. Nikulin, F.V., (1989, p.36-43, rus) 44-2246

- Ice-snow meltwater debris flow in the Dongru Longba, China. Lu, R.R., et al. (1989, p.148-160, chi) 44-2409

- Glacial peripheral moraines at Gongba Glaciers, Gongga Mt. Kang, J.C., (1989, p.172-176, chi) 44-2412

Tanker ships

- Propulsion power of an ice-going tanker ship. Takekuma, K., et al. (1984, p.B 1-B 12, eng) 44-3451

- Optimization of hull form for future arctic tankers. Phase I. Summary report. Luce, M.P., et al. (1989, 12p., eng) 44-4266

Tanks (containers)

- Freezing of fuel in airplane fuel tanks. McConnell, P.M., et al. (1986, p.20-23, 2-6, eng) 44-1334

See *also*: Storage tanks

Tectonics

- Northern Hemisphere climate regimes during the past 3 Ma. Ruddiman, W.F., et al. (1988, p.1-20, eng) 44-11

- Glaciation and other power units in the Earth's tectonics. Semenov, V.I., (1989, p.234-239, rus) 44-360

- Glaciotectionic landforms and structures. Aber, J.S., et al. (1989, 201p., eng) 44-368

- Geotectonic features of the Lambert Glacier rift zone (Antarctica) using space images. Bud'ko, V.M., et al. (1990, p.926-942, eng) 44-3964

- Geological and tectonic cartography of the Arctic. Pogrebitsky, I.U.E., et al. (1990, p.337-342, eng) 44-4103

Telecommunication

- Ice warning systems cut the cost of winter maintenance. (1989, p.100-101, eng) 44-2061

- Space and airborne technology applications to antarctic operations. Thomson, R.B., ed. (1989, 159p., eng) 44-3444

See *also*: Data transmission; Radio communication

Telemetering equipment

- Good solution to the wilderness snow sensor problem. Brandow, C.A., (1989, p.108-117, eng) 44-510

- Evaluation of an acoustic snow depth sensor. Bergman, J.A., (1989, p.126-129, eng) 44-513

- Ice penetrating buoy developed by Navy. Pickett, R.L., (1989, p.79-81, eng) 44-1464

- Detection of coarse sediment movement using radio transmitters. Chacho, E.F., Jr., et al. (1989, p.367-373(B), eng) 44-3985

See *also*: Remote sensing

Telluric currents

See *also*: Geoelectricity

Temperature

- See *also*: Air temperature; Frozen ground temperature; Frozen rock temperature; Ice temperature; Low temperature research; Low temperature tests; Snow surface temperature; Snow temperature; Soil temperature; Surface temperature; Thermal properties; Threshold temperatures; Water temperature

Temperature control

- Keep fuel flowing. (1988, p.74-75, eng) 44-755

- Simple apparatus for maintaining low temperature. Ansari, M.S., et al. (1989, p.180, eng) 44-2122

- "Ice house" cold storage heated by respiration from potatoes. Kobiyama, M., et al. (1989, p.254-257, jpn) 44-2886

- Low-temperature test object temperature variations. Ostapenko, L.S., (1990, p.649-654, eng) 44-3899

Temperature distribution

- Temperature of the Akademiyia Nauk Glacier, Severnaya Zemlya. Zagorodnov, V.S., et al. (1989, p.134-138, rus) 44-348

- Humidity near the glacier surface. Arapov, P.P., et al. (1989, p.138-140, rus) 44-349

- Ground freezing around chilled gas pipelines. Greene, D.P., et al. (1989, p.555-557, eng) 44-933

- Temperature distribution in pavement with heat source. Moriyoishi, A., et al. (1986, p.601-605, jpn) 44-2505

- Temperature and stresses of a cryo-turbogenerator rotor. Gontarovsky, P.P., et al. (1990, p.61-69, rus) 44-4351

- Calculation of temperature fields in low-temperature pipelines. Zvereva, T.V., et al. (1990, p.101-106, rus) 44-4359

Temperature effects

- Transition limits for water-droplet crystallization with the NASA Lewis icing nozzle. Marek, C.J., (1989, p.887-888, eng) 44-377

- Cold-temperature characterization of polymer concrete. Bigl, S.R., (1986, 46p., eng) 44-396

- Assessing the effects of climatic changes on snowpack and streamflow. Cooley, K.R., (1989, p.118-121, eng) 44-511

- Features of thermal destruction of inhomogeneous ice cover. Appel, L.L., (1988, p.65-71, eng) 44-523

- Numerical simulation of microphysical processes in cumulonimbus Pt. I. Hu, Z.J., et al. (1988, p.471-489, eng) 44-527

- Freeze-thaw deterioration of concrete pavements. Adkins, D.F., et al. (1989, p.97-104, eng) 44-685

- Effect of early freezing on permeability of cement paste. Bantia, N., et al. (1989, p.119-132, eng) 44-686

- Effects of subcooling on melting on a vertical wall. Okada, M., et al. (1988, p.56-68, eng) 44-688

- Stratified slope deposits in the Central Andes of Peru. Francou, B., (1988, p.47-76, fre) 44-691

- Structural study of deeply supercooled water. Bellissent-Funel, M.C., et al. (1989, p.7123-7129, eng) 44-766

- Increasing the strength of welded structures for the North. Sleptsov, O.I., et al. (1989, 220p., rus) 44-1008

- Sorption behavior of SO₂ on ice at temperatures between -30°C and -5°C. Clapsaddle, C., et al. (1989, p.1173-1176, eng) 44-1068

- Hydrology of ice caps in volcanic regions. Björnsson, H., (1988, 139p., eng) 44-1319

- Effect of a cut layer of frozen peat deposits on its freeze-thaw process. Zhuravlev, A.V., et al. (1989, p.23-26, rus) 44-1400

- Induction assembly for unloading frozen coal from freight cars. Kovalchuk, V.M., et al. (1990, p.67-74, rus) 44-1501

- Applications of field instrumentation and performance monitoring of rigid pavements. Rollings, R.S., et al. (1989, p.268-277, eng) 44-1662

- SHRP prototype procedures for calibrating falling weight deflectometers. Richter, C.A., et al. (1989, p.296-303, eng) 44-1665

- Iowa Department of Transportation pavement instrumentation. Dankbar, R., (1989, p.304-307, eng) 44-1666

- Direct comparison of nondestructive, laboratory, and *in situ* testing. Anderson, M., et al. (1989, p.310-319, eng) 44-1667

- Resilient modulus determination for frost conditions. Chamberlain, E.J., et al. (1989, p.320-333, eng) 44-1668

- Full scale pavement test infrastructure joint research. Dumont, A.G., et al. (1989, p.370-375, eng) 44-1672

- Influence of heavy fractions on low-temperature properties of diesel fuels. Tumanian, B.P., et al. (1989, p.39-41, eng) 44-1680

- Analytical models of local concrete-steel bond at low temperature. Huang, X.P., et al. (1989, p.159-171, eng) 44-1760

- Why does ice grow faster from salt water than from fresh water. Barduhn, A.J., et al. (1987, p.99-106, eng) 44-1786

- Enthalpy method for heat conduction problems with moving boundaries. Hunter, L.W., et al. (1989, p.239-242, eng) 44-1839

- Binary solidification in a vertical channel. Bennon, W.D., et al. (1989, p.706-712, eng) 44-1841

- Thermal conductivity of moist saline soils and ground. Timofeev, A.M., et al. (1988, p.91-103, rus) 44-1967

- Methods of studying seasonally freezing and frozen ground. Jikov, V.O., ed. (1985, 76p., rus) 44-2362

- Changes in structure and properties of frozen soils. Zikov, I.U.D., et al. (1985, p.13-22, rus) 44-2365

- Atmospheric influence on glaciers in Greenland during the Little Ice Age. Humlum, O., (1987, p.1-12, eng) 44-2582

- Influence of sign-variable temperature on rock strength. Rozenbaum, M.A., et al. (1989, p.22-26, eng) 44-2755

- Thermal effect of power plants on an aqueous medium. Braslavskii, A.P., et al. (1989, 251p., rus) 44-2802

- Low-temperature effects on systems for composting explosives-contaminated soils. Ayorinde, O.A., et al. (1989, 18p., eng) 44-2847

- Model for electrochemical reactions in frozen solutions. Gosser, D.K., Jr., et al. (1990, p.399-402, eng) 44-2947

- Ice sheet mass balance variations. Giovinetto, M.B., et al. (1990, p.3517-3531, eng) 44-3069

- Strength of soils and rocks at low temperatures. Sellmann, P.V., (1989, p.189-190, eng) 44-3101

- Future airborne systems in northern latitudes. Bailey, D.B., (1989, p.26-52, eng) 44-3136

- Effect of temperature on hydrogen bond distribution in water. Fujita, Y., et al. (1989, p.184-188, eng) 44-3170

- Complex permittivity of water as a function of frequency and temperature. Kaatz, U., (1989, p.371-374, eng) 44-3341

- Properties of high-strength concrete at low temperatures. Marzouk, H.M., et al. (1990, p.167-171, eng) 44-3576

- Pattern formation in snow crystal growth. Yokoyama, E., et al. (1990, p.2038-2049, eng) 44-3623

- Climatic engineering. Coveney, D.B., (1990, p.70-79, eng) 44-3920

- Phase transition of ice Ih-XI. Minagawa, I., (1990, p.1676-1685, eng) 44-3971

- Enhanced diesel fuel low temperature operability—additive developments. Brown, G.L., et al. (1990, p.196-204, eng) 44-3986

- Temperature effects on early-age properties of concrete. Gardner, N.J., (1990, p.68-78, eng) 44-4242

- Experimental study of freeze-coating on a chilled axially moving wire. Cheung, F.B., et al. (1990, p.431-439, eng) 44-4244

- Enhancing low-temperature phase stability of a 50/50 methanol/hydrocarbon blend. Lee, H.K., et al. (1988, p.31127-31134, eng) 44-4248

- Analysis of melting at the wall in laminar flow in a cylindrical channel. Chun, M.H., et al. (1990, p.443-454, eng) 44-4279

- Resistance of welded joints to viscous and brittle failure. Leushin, I.G., et al. (1990, p.135-140, rus) 44-4367

- Steel critical brittle-temperature derived from specimen cracking. Zvezdin, I.L., et al. (1990, p.486-488, eng) 44-4496

- Temperature gradients

- Relation of water movement near shelf ice edge to air-sea variables. Chu, P.C., (1987, p.31-42, eng) 44-291

- Isotopic study of halitones on the plateau. Zhao, S.X., (1988, p.394-403, eng) 44-526

- Present climate and glaciation of western Montana, U.S.A. Locke, W.W., III, (1989, p.234-244, eng) 44-1264

- Interface movement during serial freezing and thawing of a binary solution. Diller, K.R., et al. (1988, p.243-251, eng) 44-1420

- High speed data acquisition system for PCC pavement testing. Okamoto, P.A., (1989, p.128-135, eng) 44-1650

- Temperature and salinity staircases in the northwestern Weddell Sea. Muench, R.D., et al. (1990, p.295-306, eng) 44-2792

- Army arctic engine oil performance in high ambient temperatures. Leszt, S.J., et al. (1989, 14p., eng) **44-2856**
- Temperature and stresses in a superconductor coil during freezing. Grenaderova, L.A., et al. (1990, p.73-78, rus) **44-4353**
- Temperature inversions**
CO modeling in Alaska. Johnson, R.A., et al. (1989, p.191-207, eng) **44-1762**
- Temperature measurement**
Subsurface temperature predictions for hydropower developments. Christensen, M.L., et al. (1988, p.25-34, eng) **44-233**
Balloon borne atmospheric observations in the polar vortex. Rosen, J.M., et al. (1989, p.791-794, eng) **44-362**
Non-equilibrium behaviour of isotherm freezing of water in lysozyme. Zhang, J.Z., (1989, p.1375-1380, eng) **44-389**
Mapping very low surface temperature in the Scottish Highlands using NOAA AVHRR data. Collier, P., et al. (1989, p.1519-1529, eng) **44-773**
Temperature monitoring of frozen ground during construction of Gascoigne Wood drifts, Selby Mine. Wills, A.J., et al. (1989, p.533-540, eng) **44-930**
Frost formation of tube-array evaporators in a fluidized bed. Aihara, T., et al. (1988, p.973-980, eng) **44-1376**
Flow and heat transfer in an inclined, closed tube thermosyphon. Lock, G.S.H., et al. (1988, p.205-213, eng) **44-1417**
Temperature and thaw depth monitoring of pavement structures. Esch, D.C., (1989, p.78-86, eng) **44-1645**
Thermocouple and thermistor temperature measurement systems. Briggs, R., (1989, p.101-107, eng) **44-1647**
Data acquisition: first the FERF then the world. Knuth, K.V., (1989, p.136-138, eng) **44-1651**
Mine shaft-borehole thermal prospecting in perennially frozen rocks. Maslennikov, A.L., (1989, p.110-114, rus) **44-1727**
Lyotropic stress in lipid-water model systems. Förster, G., et al. (1989, p.1659-1668, eng) **44-1859**
Climate of Niwot Ridge, Front Range, Colorado, U.S.A. Greenland, D., (1989, p.380-391, eng) **44-2010**
Microthermometric and spectroscopic characterization of organic fluid inclusions. Seitz, J.C., et al. (1987, p.1651-1664, eng) **44-2117**
Water crystallization in capillary-porous media. Podenko, L.S., et al. (1989, p.36-41, rus) **44-2149**
Differential-scanning calorimetry study of low-temperature properties of oils and gases. Skriabina, T.G., et al. (1989, p.179-183, eng) **44-2276**
Recommendations for selecting apparatus for thermometric systems. Pakulin, V.A., (1985, p.68-76, rus) **44-2376**
Convective heat measurements from a NACA 0012 airfoil. Poinsett, P.E., et al. (1990, 20p., eng) **44-2811**
Satellite data collection platforms for temperature measurements. Daly, S.F., et al. (1989, 14p., eng) **44-2846**
Test apparatus for measurement of heat capacity of cryogenic materials from 77 to 300 K. Pattanayak, S., et al. (1990, p.122-126, eng) **44-3104**
Phase transformations of water in hardened cement paste - a low-temperature DSC investigation. Beddoe, R.E., et al. (1990, p.236-242, eng) **44-3367**
Isotope effect on the glass transition and crystallization of hyperquenched glassy water. Johari, G.P., (1990, p.6742-6746, eng) **44-3592**
Subpermafrost thermal regime analyzed from bottom-hole temperature data. Majorowicz, J.A., et al. (1990, p.362-371, eng) **44-3779**
Remote water-temperature measurement. Daly, S., (1989, 6p., eng) **44-3792**
Measurement of thermal conductivity and heat capacity from 4 to 300 K. Kwok, R.S., et al. (1990, p.809-813, eng) **44-3907**
Ski friction and thermal response. Warren, G.C., et al. (1989, p.223-225, eng) **44-3924**
Snow-surface temperature analysis. Bates, R.E., et al. (1989, p.109-116, eng) **44-4003**
Differences between air and snow surface temperatures during evaporation. Bernier, P.Y., et al. (1989, p.117-120, eng) **44-4004**
SST in polynyas: a case study. Schluessell, P., et al. (1990, p.933-945, eng) **44-4142**
See *also*: Geothermometry
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See *also*: Thermal regime
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Annual temperature variation and the level of man-made cryopegs. Andreev, S.V., (1989, p.106-112, rus) **44-156**
Upper ocean internal waves in the marginal ice zone of the Greenland Sea. Eckert, E.G., (1989, 77p., eng) **44-973**
Overview of potential effects of rapid warming on the Canadian Arctic. Lonergan, S.C., (1989, p.464-468, eng) **44-1046**
Statistical properties of freeze date variables. Waylen, P.R., et al. (1989, p.1314-1328, eng) **44-1526**
- Climate and the surface ablation regime of the Greenland ice sheet. Ambach, W., (1989, p.311-316, eng) **44-1891**
- Climatic changes during the past century. Li, P.J., (1989, p.193-202, chij) **44-2414**
- Prediction of pavement layer temperature during winter months using a computer model. Huber, G.A., et al. (1988, p.2-19, eng) **44-2841**
- Estimates for temperature of a piece of cold ice. Payne, L.E., et al. (1990, p.443-452, eng) **44-3276**
- Tensile properties**
Cyclic endurance of steels at reduced temperatures. Zorin, E.E., et al. (1989, p.612-613, eng) **44-530**
Avalanche formation and snow fences. Yoshida, Z., et al. (1988, p.45-56, jpn) **44-731**
Experimental study of the brittle behaviour of iceberg ice. Lachance, J., et al. (1988, p.11-19, eng) **44-1125**
Crack propagation on floating structures in ice-infested waters. Swamidass, A.S.J., et al. (1988, p.527-537, eng) **44-1170**
Fiber composite materials in an arctic environment. Dutta, P.K., (1989, p.216-225, eng) **44-1412**
Experimental evaluation of the tensile strength of impact ice. Xian, X., et al. (1989, p.1205-1208, eng) **44-1512**
Monitoring pavement responses to traffic loads. Christison, J.T., (1989, p.180-185, eng) **44-1656**
Fracture of concrete at cryogenic temperatures. Ellices, M., et al. (1989, p.106-116, eng) **44-1736**
Fracture toughness of porous ice with and without particles. Smith, T.R., et al. (1990, p.241-246, eng) **44-2230**
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McLeod's PVN concept extended to asphalt mix temperature susceptibility. Haas, R., et al. (1988, p.178-192, eng) **44-2842**
Low temperature characteristics of engineered asphalts. Anderson, K.O., et al. (1988, p.292-310, eng) **44-2843**
PVN as a measure of paving asphalt temperature susceptibility. McLeod, N.W., (1988, p.382-452, eng) **44-2845**
- Tensile strength**
Notch-strengthening effect in fresh-water ice. Nixon, W.A., et al. (1990, p.107-111, eng) **44-3729**
- Tension**
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- Terminology**
"Folk glaciology" in Central Asia. Glazyrin, G.E., et al. (1989, p.35-43, rus) **44-333**
Slush-flow questionnaire. Onesti, L.J., et al. (1989, p.226-230, eng) **44-57**
Some observations on needle ice. Lawler, D.M., (1989, p.406-409, eng) **44-1260**
- Terraces**
Late Pleistocene glacial formations and terraces. Lavrov, A.S., et al. (1989, p.204-211, rus) **44-1923**
Correlating marginal ice zones, lake shore formations, and river terraces. Raukas, A.V., et al. (1989, p.208-217, rus) **44-2051**
- Terrain identification**
Terrain evaluation and pipeline construction in the Canadian North. Crampton, C.B., (1988, p.19-28, eng) **44-414**
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Filtering and classification routines in land use imagery. Merry, C.J., et al. (1988, p.57-58, eng) **44-610**
Calibrated L-band terrain measurements and analysis program - results. Larson, R.W., et al. (1988, 109p., eng) **44-725**
Ice-thrust terraces and glaciectonic settings in central Alberta. Tsui, P.C., et al. (1989, p.1308-1318, eng) **44-765**
Mapping arctic tundra vegetation types using satellite data. Stow, D., et al. (1989, p.1451-1457, eng) **44-772**
Remote sensing of earth terrain. Kong, J.A., (1989, 26p., eng) **44-990**
Remote sensing of earth terrain. Semiannual report. Mar-Air, 1987. Kong, J.A., (1987, 13p., eng) **44-1631**
Alaska interim land cover mapping program - final report. Fitzpatrick-Lins, K., et al. (1989, 10p., eng) **44-2951**
Applications of thematic mapper thermal infrared imagery. Belanger, J.R., et al. (1990, p.231-238, eng) **44-3667**
Multiband imaging systems. McKim, H.L., et al. (1990, 10p., eng) **44-4058**
See *also*: Geobotanical interpretation
- Test chambers**
Aircraft icing test facility. Doogood, P.N., (1987, 21p., eng) **44-1608**
Liquid water content and droplet size calibration of the NASA Lewis icing Research Tunnel. Ide, R.F., (1989, 28p., eng) **44-2812**
See *also*: Cloud chambers; Cold chambers; Wind tunnels
- Test equipment**
Transition limits for water-droplet crystallization with the NASA Lewis icing nozzle. Marek, C.J., (1989, p.887-888, eng) **44-377**
- Method of making ice with given physical properties. Petrov, I.G., et al. (1989, 11p., eng) **44-1497**
- Test apparatus for measurement of heat capacity of cryogenic materials from 77 to 300 K. Pattanayak, S., et al. (1990, p.122-126, eng) **44-3104**
- Ice strength indexer, phase III. Baker, D.N., (1990, 56p. + append., eng) **44-4140**
- Tests**
Successful ice test-run for the new Swedish icebreaker. Oden, (1989, p.705-706, eng) **44-135**
Fracture toughness of columnar freshwater ice. Bentley, D.L., et al. (1989, p.7-20, eng) **44-826**
TsPZ snowdrift gages and results of their testing. Chernous, P.A., et al. (1989, p.95-101, rus) **44-1577**
Snowfall Chemistry Collector Intercomparison Test (SCCIT). Sisterson, D.L., et al. (1989, p.477-488, eng) **44-2750**
Army arctic engine oil performance in high ambient temperatures. Leszt, S.J., et al. (1989, 14p., eng) **44-2856**
Effect of specifications and inspection practices on concrete freeze-thaw resistance. Ward, M.A., et al. (1990, p.271-276, eng) **44-3703**
Wheeled versus tracked vehicle snow mobility test program. Green, C.E., et al. (1989, 19p., eng) **44-3759**
Nondestructive evaluation of moisture migration in insulation material. Ayorinde, O.A., (1989, p.111-121, eng) **44-3760**
Moving an ice mountain. Kollé, J.J., (1990, p.48-53, eng) **44-3786**
See *also*: Bearing tests; Cold weather tests; Environmental tests; Freeze thaw tests; Hardness tests; High pressure tests; Impact tests; Low temperature tests; Mechanical tests; Penetration tests; Pile load tests; Plasticity tests; Soil tests; Strain tests; Ultrasonic tests
- Textures**
See *also*: Cryogenic textures; Soil texture
- Thaw depth**
Satellite monitoring of soil freeze-thaw boundary. Ulab, F.T., et al. (1988, 7p., eng) **44-892**
Temperature and thaw depth monitoring of pavement structures. Esch, D.C., (1989, p.78-86, eng) **44-1645**
Alaska's experiences with non-destructive testing. Connor, B., (1989, p.226-233, eng) **44-1660**
Seasonal thawing of soils, with underlying ice-saturated ground. Gavrilov, P.P., et al. (1988, p.41-48, rus) **44-1963**
Method of estimating thermal settlement in calculating thaw depth. Sheikin, I.V., (1985, p.42-48, rus) **44-2370**
Seasonal active layer in the basin of Huaila River, China. Wang, J.C., et al. (1989, p.203-214, chij) **44-2415**
Computer estimation of freeze-thaw depth. Braley, W.A., et al. (1989, 32p., eng) **44-2936**
Effect of thaw depth on infiltration, runoff and sediment transport. Benoit, G.R., et al. (1990, p.224-230, eng) **44-2988**
Soil thaw as influenced by small grain residue color. Sharratt, B.S., et al. (1990, p.290-294, eng) **44-2997**
Geocryological and geothermal features of the deposits near Kumtor. Ermolin, E.D., et al. (1989, p.31-40, rus) **44-3232**
Radar study of active layer thicknesses in wet tundra in AK. Doolittle, J.A., et al. (1990, p.175-182, eng) **44-4050**
See *also*: Active layer
- Thaw layer**
See *also*: Active layer
- Thaw weakening**
Application of AGF to the construction of the ventilation drifts at Selby Wistow Mine. Auld, F.A., (1989, p.513-524, eng) **44-928**
NDT in cold regions: a review of the state-of-the-art of deflection testing. Coetzee, N.F., et al. (1989, p.198-209, eng) **44-1658**
- Thawing**
Optimize freeze-thaw design of AIRS. Berg, R.L., (1987, 56p., eng) **44-1271**
Estimations of stresses on a shaft during the thawing of rocks. Kul'tikov, A.M., (1989, p.88-96, rus) **44-2157**
Use of ultrasound technique to monitor freezing and thawing of water in plants. Raschi, A., et al. (1989, p.411-418, eng) **44-2946**
Correlation of results of plate and compression tests on frozen soils under thawing. Sorokin, V.A., et al. (1990, p.160-161, eng) **44-3257**
See *also*: Artificial thawing; Defrosting; Geothermal thawing; Ground thawing; Melting
- Theories**
Theory of freezing: the inhomogeneous Ornstein-Zernike equation. McCoy, J.D., et al. (1989, p.87-100, eng) **44-262**
W.J. McGee, early discoverer of glacial erosion laws. Harbor, J.M., (1989, p.419-425, eng) **44-1904**
Climatic History and the Future. Lamb, H.H., (1985, 835p., eng) **44-2766**
See *also*: Analysis (mathematics); Ice age theory
- Theory**
Contribution to the theory of melting. Carmesin, H.O., (1990, p.4349-4357, eng) **44-3787**

Thermal analysis

- Thermal runoff to seas of the Arctic Ocean. Elshin, I.U.A., [1989, p.448-452, eng] **44-286**

Thermal balance

- See *also*: Glacier heat balance; Heat balance

Thermal conductivity

- Guide to forecasting the thermal regime of soils in Yakutia. Fel'dman, G.M., et al. [1988, 240p., rus] **44-193**
- Subsurface temperature predictions for hydropower developments. Christensen, M.L., et al. [1988, p.25-34, eng] **44-233**
- Thermal conductivity of a dendritic ice layer. Fukusako, S., et al. [1989, p.269-278, eng] **44-263**
- Ground thermal conductivity effect on a pipeline system. Sobolev, V.G., [1989, p.103-106, rus] **44-372**
- Heat conduction in snow. Yen, Y.C., [1989, p.21-32, eng] **44-827**
- Interaction of insulated pipe with frozen soil. Ianitskii, P.A., [1989, p.74-80, eng] **44-1088**
- Effect of a cut layer of frozen peat deposits on its freeze-thaw process. Zhuravlev, A.V., et al. [1989, p.23-26, rus] **44-1400**
- Thermophysical properties of sea ice. Nazintsev, I.U.L., et al. [1988, 258p., rus] **44-1402**
- Soil suction monitoring for roads and airfields. Fredlund, D.G., [1989, p.24-39, eng] **44-1640**
- Soil water content during freezing and thawing conditions. Nieber, J.L., et al. [1989, p.45-62, eng] **44-1642**
- Thermocouple and thermistor temperature measurement systems. Briggs, R., [1989, p.101-107, eng] **44-1647**
- Simple and economical thermal conductivity measurement system. Atkins, R.T., [1989, p.108-116, eng] **44-1648**
- Measuring the thermophysical properties of frozen soils. Zaitsev, V.S., [1986, p.165-169, eng] **44-1728**
- Thermal conductivity of permafrost soils. Gavril'ev, R.I., [1989, p.701-706, eng] **44-1833**
- Enthalpy method for heat conduction problems with moving boundaries. Hunter, L.W., et al. [1989, p.239-242, eng] **44-1839**
- Hydrothermal problems of frozen soils. Savvinov, D.D., ed. [1988, 126p., rus] **44-1958**
- Thermal conductivity coefficient of frozen chernozem-meadow soils. Mandarov, A.A., et al. [1988, p.76-86, rus] **44-1965**
- Thermal conductivity of moist saline soils and ground. Timofeev, A.M., et al. [1988, p.91-103, rus] **44-1967**
- Thermal conductivity of ice and ice clathrate. Ahmad, N., et al. [1987, p.167-171, eng] **44-2347**
- Thermal response of downhill skis. Warren, G.C., et al. [1989, 40p., eng] **44-2361**
- Permafrost-depth calculation by the ground temperature method. Yuan, X.H., [1989, p.239-248, chi] **44-2419**
- Thermal conductivity, heat capacity and diffusivity of rubbers from 60 to 300 K. Bhowmick, T., et al. [1990, p.116-121, eng] **44-3103**
- Thermal conductivity of snow and snow-metal mixtures. Murakami, S., et al. [1989, p.13-25, jpn] **44-3123**
- On the front-tracking scheme for phase-change problems. Askar, H.G., et al. [1989, p.507-513, eng] **44-3248**
- Melting of ice-aluminum balls system. Chelliah, S., et al. [1990, p.222-231, eng] **44-3249**
- Device for measuring low temperature properties of electrically conducting materials. Buravov, S.E., et al. [1988, p.100-104, eng] **44-3591**
- Measurement of thermal conductivity and heat capacity from 4 to 300 K. Ewok, R.S., et al. [1990, p.809-813, eng] **44-3907**
- Determination of thermal conductivity in freezing moist soils. Jacobs, H.R., et al. [1990, p.335-361, eng] **44-4243**

Thermal diffusion

- Exothermic model of percolation zone in a glacier. Cai, B.L., et al. [1989, p.312-314, eng] **44-289**
- Excessive pressure in the pores of a snow cover. Samoiluk, V.I., [1989, p.169-172, rus] **44-356**
- Substrate freeze-thaw in a drained Alberta fen. Swanson, L.E., et al. [1989, p.1024-1029, eng] **44-1268**

Thermal drills

- Hot-water drilling on the Siple Coast. Boller, W.L., et al. [1988, p.62-63, eng] **44-1696**

Thermal effects

- Effect of Danube dams on ice regime. Starosolsky, O., [1989, p.222-232, eng] **44-2038**
- See *also*: Temperature effects

Thermal expansion

- Thermal expansion of structure-II clathrate hydrates. Tse, J.S., [1990, p.25-32, eng] **44-2772**
- Role of thermal expansion of ice in forming lake shoreline profiles. Tesaker, E., [1987, p.249-257, eng] **44-3315**

Thermal imagery

- See *also*: Infrared photography

Thermal insulation

- Moisture accumulation in insulated walls in cold regions. McFadden, T., [1989, p.73-83, eng] **44-214**
- Iceing risks on roads built with slag. Gustafson, K., [1988, 75p., swe] **44-623**

Frost protection and insulation for transportation facilities.

- Gandahl, R., et al. [1987, 49p., eng] **44-625**

Frost heave control with buried insulation. Interim report.

- Ardani, A., [1987, 49p., eng] **44-891**

Proceedings.

- [1989, 820p., eng] **44-1356**

Hygrothermal influence of air convection in wall structures.

- Ojanen, T., et al. [1989, p.234-249, eng] **44-1357**

Moisture and heat transfer in walls in cold regions.

- Burch, D.M., et al. [1989, p.513-531, eng] **44-1359**

Moisture transfer through walls.

- Forest, T.W., [1989, p.532-542, eng] **44-1360**

Frost protection of building foundations by thermal insulation.

- Greeley, D.S., [1989, p.695-710, eng] **44-1362**

Road over permafrost: design of access road in Alaska.

- Hartely, M.C., et al. [1988, p.19-22, eng] **44-1491**

Low energy houses for cold climates.

- Adamson, B., et al. [1987, 59p., eng] **44-1603**

Lining for icicle prevention in railroad tunnels.

- Okada, K., [1988, p.9-15, eng] **44-1775**

Frost heave control with buried insulation. Final report.

- Ardani, A., [1989, 43p., eng] **44-1830**

Foundations using thermal insulation against frozen ground.

- Fujimura, S., et al. [1987, p.288-293, jpn] **44-2541**

Expanded polystyrene draining material for frost protection.

- Nakamura, T., et al. [1988, p.114-119, jpn] **44-2670**

Cold tolerance of life rafts.

- Sakurai, A., et al. [1988, p.330-335, jpn] **44-2701**

Thermal insulation of radio relay stations in winter (Pt.2).

- Komukai, K., et al. [1989, p.551-556, jpn] **44-2914**

Thickness of thermal insulation for tunnel frost prevention.

- Mikami, T., et al. [1989, p.603-608, jpn] **44-2921**

Analysis of frost preventing measure at Hoheiko tunnel.

- Takeichi, K., et al. [1989, p.225-242, jpn] **44-3179**

Heat transfer in evacuated packed glass spheres at low temperature.

- Kluge, V.B., et al. [1988, p.239-248, ger] **44-3571**

Nondestructive evaluation of moisture migration in insulation material.

- Ayoriinde, O.A., [1989, p.111-121, eng] **44-3760**

Earth embankment with thermal insulation and nonfreezing drainage.

- Kuznetsov, G.I., et al. [1990, p.64-73, rus] **44-3944**

Engineering of thermoplastics at cryogenic temperatures.

- Drozdz, V.V., [1990, p.91-95, rus] **44-4357**

See *also*: Cellular plastic; Pipeline insulation**Thermal measurements**

- See *also*: Temperature measurement

Thermal pollution

- Influence of heated water discharges on ice phenomena in open channels. Loose, F., [1989, p.122-133, eng] **44-2029**

Effect of a hydroelectric power plant on ice conditions.

- Flippov, A.M., [1989, p.95-101, rus] **44-4409**

Thermal processes

- See *also*: Hydrothermal processes

Thermal properties

- Durability of concrete under simulated arctic conditions. Moukwa, M., et al. [1989, p.45-51, eng] **44-131**

Cylindrical Stefan problem sensitivity to thermal and geometrical parameters.

- Carnes-Pintauro, A.M., et al. [1989, p.547-549, eng] **44-931**

Forecasting multi-year variations in the thermal regime of soils.

- Skrabin, P.N., et al. [1988, p.113-121, rus] **44-1969**

Differential-scanning calorimetry study of low-temperature properties of oils and gases.

- Skrabina, T.G., et al. [1989, p.179-183, eng] **44-2276**

Polyhedral clathrate hydrates of a strong base.

- Mootz, D., et al. [1990, p.139-157, eng] **44-2777**

Inclusion effect on heat capacities of simple molecules.

- White, M.A., et al. [1990, p.215-225, eng] **44-2780**

Anomalous 'freezing' of water in hydrophilic polymeric structures.

- Higbath, D., et al. [1989, p.243-259, eng] **44-2790**

McLeod's PVN concept extended to asphalt mix temperature susceptibility.

- Haas, R., et al. [1988, p.178-192, eng] **44-2842**

PVN as a measure of paving asphalt temperature susceptibility.

- McLeod, N.W., [1988, p.382-452, eng] **44-2845**

Artificial ground freezing for treatment of toxic wastes.

- Sullivan, J.M., Jr., et al. [1990, p.36-44, eng] **44-2964**

Investigation of thermal screening of individual soldiers in cold regions. Final report.

- Murrell, D.F., [1990, 12p., + append., eng] **44-3443**

Isotope effect on the glass transition and crystallization of hyperquenched glassy water.

- Johari, G.P., [1990, p.6742-6746, eng] **44-3592**

Improving the thermal properties of lightweight concretes.

- Fedorov, V.A., [1990, p.33-44, rus] **44-4484**

See *also*: Ice thermal properties; Permafrost thermal properties; Snow thermal properties; Specific heat**Thermal radiation**

- Land-surface temperature measurement from space: physical principles and inverse modeling. Wan, Z.M., et al. [1989, p.268-278, eng] **44-445**

Infrared snow cover detection by warming of sea ice snow surface.

- Ikedo, M., [1989, p.552-560, eng] **44-409**

Determination of frosts in orange groves from NOAA-9 AVHRR data.

- Caselles, V., et al. [1989, p.135-146, eng] **44-1945**

Applications of thematic mapper thermal infrared imagery.

- Belanger, J.R., et al. [1990, p.231-238, eng] **44-3667**

Thermal regime

- Effect of pile foundations on the temperature regime of permafrost. Smirnov, V.N., et al. [1989, p.71-73, rus] **44-97**

Comparison of two methods of calculating soil freezing depth.

- Gelfan, A.N., [1989, p.98-104, rus] **44-104**

Formation of the thermal regime of a talik above permafrost.

- Varlamov, S.P., et al. [1989, p.38-47, rus] **44-147**

Guide to forecasting the thermal regime of soils in Yakutia.

- Fel'dman, G.M., et al. [1988, 240p., rus] **44-193**

Ground thermal conductivity effect on a pipeline system.

- Sobolev, V.G., [1989, p.103-106, rus] **44-372**

Thermal regime of moorings in a Yakut river port.

- Sobol', S.V., et al. [1989, p.68-71, rus] **44-373**

Role of heat exchange in the thermal regime of perennially frozen rocks.

- Bryksin, V.N., [1989, p.31-35, rus] **44-1254**

Study of temperature fields in thawing soils.

- Brönfenbrener, L.E., et al. [1989, p.59-65, rus] **44-1256**

Effect of a cut layer of frozen peat deposits on its freeze-thaw process.

- Zhuravlev, A.V., et al. [1989, p.23-26, rus] **44-1400**

Drying cut peat in a frozen deposit.

- Gamaunov, N.I., et al. [1989, p.19-24, rus] **44-1401**

Thermophysical properties of sea ice.

- Nazintsev, I.U.L., et al. [1988, 258p., rus] **44-1402**

Induction assembly for unloading frozen coal from freight cars.

- Koval'chuk, V.M., et al. [1988, p.67-74, rus] **44-1501**

Interrelations of forest and swamp in a taiga zone.

- Glebov, F.Z., [1988, 182p., rus] **44-1719**

Mine shaft-borehole thermal prospecting in perennially frozen rocks.

- Maslennikov, A.L., [1989, p.110-114, rus] **44-1727**

Thermal regime of the soils near the northern Yenisei.

- Skrabin, P.N., et al. [1989, 175p., rus] **44-1854**

Apron entrainment of sub-polar glaciers.

- Evans, D.J.A., [1989, p.317-324, eng] **44-1892**

Hydrothermal problems of frozen soils.

- Savvinov, D.D., [1988, p.4-18, rus] **44-1958**

Hydrothermal regime of frozen flood-plain soils.

- Savvinov, D.D., [1988, p.4-18, rus] **44-1959**

Hydrothermal regime of frozen pale yellow soils during irrigation.

- Sleptsov, V.I., et al. [1988, p.18-30, rus] **44-1960**

Potential effectiveness of thermal melioration of frozen soil.

- Romarov, P.G., et al. [1988, p.104-113, rus] **44-1968**

Forecasting multi-year variations in the thermal regime of soils.

- Skrabin, P.N., et al. [1988, p.113-121, rus] **44-1969**

Water temperature and ice cover in the impounding reservoir.

- Baginská, M., et al. [1989, p.1-14, eng] **44-2018**

Changes of the ice thermal regime in the river caused by heated water discharges.

- Dobrowolski, A., [1989, p.55-65, eng] **44-2023**

Influence of the evaporation assessment method on the heat exchange during winter period.

- Jurak, D., [1989, p.93-106, eng] **44-2026**

Thermal and ice regimes of reservoirs and basins of power plants.

- Shatalina, I.N., [1989, p.213-221, eng] **44-2037**

Thermal and moisture regime of seasonally freezing soils in Transbaikalia.

- Zhelezniak, I.I., [1988, p.48-50, rus] **44-2371**

Recommendations for selecting apparatus for thermometric systems.

- Pakulin, V.A., [1985, p.68-76, rus] **44-2376**

Thermal regime of permafrost in Alaska and predicted global warming.

- Osterkamp, T.E., et al. [1990, p.38-42, eng] **44-3389**

Modelling the thermal regime of a lake during the winter season.

- Sahlberg, J., [1988, p.151-159, eng] **44-3506**

Norman Wells pipeline monitoring: geothermal observations, 1984-1987.

- Burgess, M.M., et al. [1990, p.233-244, eng] **44-3627**

Performance of heat pump chilled foundations.

- Goodrich, L.E., et al. [1990, p.409-418, eng] **44-3689**

Subpermafrost thermal regime analyzed from bottom-hole temperature data.

- Wojcik, J.A., et al. [1990, p.362-371, eng] **44-3779**

Snow and ground thermal regimes in a subarctic woodland.

- Desrochers, D.T., [1989, p.172-183, eng] **44-4010**

Controlling the thermal regime of tunnels in severe climatic conditions.

- Gendler, S.G., et al. [1990, p.18-22, rus] **44-4483**

Thermal conditions over the Great Wall Station, summer 1987-1988.

- Bian, L., et al. [1990, p.73-81, chi] **44-4551**

Thermal stresses

- Thermal and durability considerations for composite steel-concrete sandwich structures. Gerwick, B.C., Jr., et al. [1988, p.73-83, eng] **44-1738**
- Ice-wedge cracks, western Arctic coast. McKay, J.R., [1989, p.365-368, eng] **44-1873**
- Effect of deformation on steel sensitivity to stresses. Antropov, N.P., et al. [1990, p.21-25, rus] **44-4342**
- Temperature and stresses in a superconductor coil during freezing. Grenadeva, L.A., et al. [1990, p.73-78, rus] **44-4353**
- Thermal stresses in a glass plate due to freezing and heating. Leonets, V.A., et al. [1990, p.130-135, rus] **44-4366**
- Thermistors**
- Determination of frost penetration by soil resistivity measurements. Atkins, R.T., [1989, p.87-100, eng] **44-1646**
- Thermocouple and thermistor temperature measurement systems. Briggs, R., [1989, p.101-107, eng] **44-1647**
- Simple and economical thermal conductivity measurement system. Atkins, R.T., [1989, p.108-116, eng] **44-1648**
- Thermocouples**
- Calibration of thermocouples at low temperatures. Nikol'ski, V.S., et al. [1989, p.58-59, eng] **44-903**
- Determination of frost penetration by soil resistivity measurements. Atkins, R.T., [1989, p.87-100, eng] **44-1646**
- Thermocouple and thermistor temperature measurement systems. Briggs, R., [1989, p.101-107, eng] **44-1647**
- High speed data acquisition system for PCC pavement testing. Okamoto, P.A., [1989, p.128-135, eng] **44-1650**
- Data acquisition: first the FERF then the world. Knuth, K.V., [1989, p.136-138, eng] **44-1651**
- Errors in the measurements of low temperatures by thermocouples. Fellmuth, V.B., et al. [1988, p.63-73, ger] **44-3572**
- Thermodynamic properties**
- Infrared snow cover detection by warming of sea ice/snow surface. Ikeua, M., [1989, p.552-560, eng] **44-409**
- Entropy of amorphous ice. Whalley, E., et al. [1989, p.782-783, eng] **44-1409**
- Thermodynamic properties of a propane hydrate near hydrate-ice transition. Bulciko, V.M., et al. [1989, p.663-666, rus] **44-2610**
- Dynamic and thermodynamic properties of clathrate hydrates. Belosludov, V.R., et al. [1990, p.59-69, eng] **44-2775**
- Fundamental equation for water from the melting line to 1273 K. Saul, A., et al. [1989, p.1537-1564, eng] **44-3698**
- See *also*: Frozen ground thermodynamics
- Thermodynamics**
- Excessive pressure in the pores of a snow cover. Samoiluk, V.I., [1989, p.169-172, rus] **44-356**
- Optimal thermodynamic conditions in the development of hail processes. Goral, G.G., [1989, p.114-124, rus] **44-818**
- Ice sandwich experiments and the thermodynamic-rheological model of frost heave. Williams, P.J., et al. [1989, p.579-580, eng] **44-943**
- Flow simulation in the Weddell Sea. Fettweis, M., et al. [1989, 69p., eng] **44-1351**
- Dynamics of the antarctic ice cap. Decleir, H., et al. [1989, 51p., eng] **44-1353**
- Model of sea ice cover in the arctic basin. Makshtas, A.P., et al. [1988, p.96-116, rus] **44-1939**
- On optimal heating and cooling strategies for melting and freezing. Gordon, J.M., et al. [1990, p.81-84, eng] **44-2134**
- Some applications of a numerical model of floating sea ice platforms. Szilder, K., et al. [1990, p.61-66, eng] **44-2207**
- Effect of surface characteristics of metal oxides on heterogeneous nucleation. Gorbunov, B.Z., et al. [1989, p.225-230, rus] **44-2567**
- Influence of surface characteristics of metal oxides on heterogeneous nucleation. Model of ice formation from supercooled water. Gorbunov, B.Z., et al. [1989, p.231-236, rus] **44-2568**
- Low-temperature effects on systems for composite explosives-contaminated soils. Ayorinde, O.A., [1989, 18p., eng] **44-2847**
- Thermokarst**
- Geosynthetic reinforcement of paved road embankments on polygonal ground. Kinney, T.C., et al. [1990, p.102-112, eng] **44-4490**
- Thermokarst development**
- Retrospective thaw slumps near Mayo, Yukon Territory. Burn, C.R., et al. [1989, p.31-40, eng] **44-489**
- Intensity of destruction of fields in inter-alas landscapes. Bosikov, N.P., [1989, p.149-154, eng] **44-2443**
- Facies of rock glaciers. Tutkov, S.N., [1989, p.98-109, rus] **44-3238**
- Thermokarst lakes**
- Permafrost and lakes in the Mackenzie Delta. Marsh, P., [1990, p.131-136, eng] **44-3654**
- Thermometry**
- See *also*: Resistance thermometers; Temperature measurement
- Thickness**
- Predicting changes in thickness of seasonal freezing of rocks. SerEGIN, N.V., et al. [1988, p.70-75, eng] **44-470**
- See *also*: Ice cover thickness; Glacier thickness; Snow depth
- Thickness gages**
- Radar ice thickness gage. Klein, G.S., et al. [1989, p.58-73 (Pertinent p.67-68), rus] **44-3909**
- Thin sections**
- See *also*: Microscope slides
- Thixotropy**
- Icquakes: a model technique for liquefaction potential assessment. [1989, p.56, eng] **44-1930**
- Threshold temperatures**
- Steel critical brittleness temperature derived from specimen cracking. Zvezdin, I.U.I., et al. [1990, p.486-488, eng] **44-4496**
- Determination of critical brittleness temperatures in crack resistance testing. Kartov, G.P., et al. [1990, p.189-493, eng] **44-4497**
- Thunderstorms**
- Comments on "Use of enhanced IR/visible satellite imagery to determine heavy snow areas". Elkins, H.A., [1989, p.251-255, eng] **44-265**
- Determining the duration of the hail hazard condition of clouds. Adzhiev, A.Kh., [1989, p.109-113, rus] **44-817**
- Electrical discharges in the electrostatic field of thunder and hail clouds. Beltuganov, M.N., [1989, p.7-13, rus] **44-864**
- Thunderstorms with snow. Elkins, H.A., [1987, 91p., eng] **44-1111**
- Ice particle charge transfer studies. Saunders, C.P.R., [1987, 130p., eng] **44-1285**
- Influence of large ice particles on radiative transfer through clouds. Smith, E.A., et al. [1989, p.739-755, eng] **44-3306**
- Frequency of thunderstorms and hail near an industrial city. Zabolotskaia, T.N., et al. [1989, p.55-59, rus] **44-4231**
- Tibet**
- Reconstruction of the Late Pleistocene glaciation of the Tibetan highlands. Lebedeva, I.M., [1989, p.98-107, rus] **44-303**
- Tidal currents**
- Tidal currents in shallow fast ice covered regions. Prinsenberg, S.J., et al. [1989, p.1268-1278, eng] **44-117**
- Movement of the drifting ice in Bohai Bay. Deng, S.Q., [1988, p.297-300, eng] **44-1147**
- Flow simulation in the Weddell Sea. Fettweis, M., et al. [1989, 69p., eng] **44-1351**
- Effect of freezing on tidal currents at entrances to bays. Kondo, H., [1985, p.103-107, jpn] **44-2300**
- Tides**
- Construction of the port of Nome, Alaska. Campion, D., et al. [1988, p.627-632, eng] **44-1179**
- Arctic data compilation and appraisal. Vol.1. Beaufort Sea. Cornford, A.B., et al. [1982, 279p., eng] **44-1436**
- Models of ocean processes. Vinogradov, M.E., ed. [1989, 365p., rus] **44-2282**
- Deterioration of concrete in cold sea waters. Moukwa, M., [1990, p.439-446, eng] **44-3898**
- Till**
- See *also*: Glacial till
- Timberlines**
- See *also*: Forest lines
- Time factor**
- Methane flux time series for tundra environments. Whalen, S.C., et al. [1988, p.399-409, eng] **44-374**
- Modeling snowfall-to-snowmelt delay. Yevjevich, V., et al. [1989, p.203-211, eng] **44-2192**
- Alternative approach to the study of pedogenic chronosequences. Messer, A.C., [1989, p.221-229, eng] **44-3005**
- Lichen growth rates for the northwest coast of Spitsbergen, Svalbard. Werner, A., [1990, p.129-140, eng] **44-4046**
- Tires**
- Passenger car and light truck tire dynamic driving traction in snow. [1985, 26p., eng] **44-949**
- Interaction problems between a rigid tire and a supporting snowpack. Yong, R.N., et al. [1987, p.1-10, eng] **44-1226**
- Test of tires to prevent skid on snow and ice. Murakami, M., et al. [1987, p.123-139, jpn] **44-1309**
- Laboratory tests of ice and snow tires. Hiroki, E., et al. [1988, p.233-238, jpn] **44-2690**
- U-C-Tyre grip adhesive. Horiuchi, K., et al. [1988, p.239-244, jpn] **44-2691**
- Skid resistance of winter tires. Murakami, M., et al. [1989, p.215-220, jpn] **44-2881**
- Performance of nonmetal tire chains in Hokkaido. Sato, H., et al. [1989, p.97-102, jpn] **44-3567**
- Tissues**
- See *also*: Plant tissues
- Tools**
- See *also*: Equipment
- Topographic effects**
- Instability and self-regulation of glacier areas. Mayo, V.L., [1989, p.425, rus] **44-331**
- Temperature distribution in an ice sheet. Larina, I.B., et al. [1989, p.43-49, rus] **44-334**
- Influence of the mountain barrier effect on iceberg motion. Lu, M.C., et al. [1989, p.701-710, eng] **44-481**
- Present climate and glaciation of western Montana, U.S.A. Locke, W.W., III, [1989, p.244-244, eng] **44-1264**
- Numerical study of topographically steered flows in the Fram Strait. McShane, D.W., [1989, 44p., eng] **44-1521**
- Doppler radar observation of orographic modification of snow clouds: a case of enhanced snowfall. Nakai, S., et al. [1990, p.1-16, jpn] **44-3310**
- Offshore and onshore wind velocities over ice in Hudson Bay. Larouche, P., [1990, p.55-59, eng] **44-3513**
- Wind speed and snow evaporation in a stand of aspen lodgepole pine in Alberta. Bernier, P.Y., [1990, p.309-314, eng] **44-3602**
- Causeway effects on oceanographic processes near Pradhoe Bay. Hale, D.A., et al. [1989, 50p., eng] **44-3772**
- Topographically induced convective snowbands over the Baltic Sea and their precipitation distribution. Andersson, T., et al. [1990, p.299-312, eng] **44-3906**
- Topographic controls on Holocene ice sheet margin dynamics. Warren, C.R., et al. [1990, p.907-910, eng] **44-4215**
- Topographic features**
- Antarctica: past and future glaciations. Mughlov, S.M., [1989, 160p., rus] **44-230**
- Isidis basin: site of ancient volatile-rich debris layer. Grizzaffi, P., et al. [1989, p.558-581, eng] **44-378**
- Use of a new high-speed digital data acquisition system in airborne ice-sounding. Wright, D.L., et al. [1989, p.561-567, eng] **44-410**
- Low-relief topographic enhancement in a Landsat snow-cover scene. Eytan, J.R., [1989, p.105-118, eng] **44-524**
- Snow-avalanche maps for use by the Norwegian Army. Lied, K., et al. [1989, p.70-174, eng] **44-568**
- Equations for avalanche mass center motion. Nohguchi, Y., [1989, p.215-217, eng] **44-577**
- Slush-flow questionnaire. Onesti, L.J., et al. [1989, p.226-230, eng] **44-579**
- Numerical simulation of snowdrift development. Uematsu, T., et al. [1989, p.265-268, eng] **44-587**
- Characteristics of snow along the Japan Sea coast. Kawashima, K., et al. [1988, p.15-24, jpn] **44-728**
- Geomorphology and glaciology of second highest dome in Queen Maud Land. Ageta, Y., et al. [1989, p.88-96, eng] **44-1805**
- Primary glacial relief of interfluvies in a boundary region. Antonov, S.L., [1989, p.43-47, rus] **44-2247**
- Ice-snow meltwater debris flow in the Dongru Longba, China. Liu, R.R., et al. [1989, p.148-160, chi] **44-2409**
- Topographic change of the Meighen Ice Cap. Haythornthwaite, T.W., [1986, 102p., eng] **44-2954**
- Remote-sensing studies of Kvitoyokken, an ice cap on Kvitoya, north-east Svalbard. Bamber, J.L., et al. [1990, p.75-81, eng] **44-3725**
- See *also*: Bottom topography; Coastal topographic features; Nival relief; Pit and mound topography; Polygonal topography
- Topographic maps**
- Maximum avalanche run-out distance. Lied, K., et al. [1989, p.164-169, eng] **44-567**
- Exact large-scale maps of the Alpine glaciers: a century of their preparation. Brunner, K., [1988, p.129-140, ger] **44-1029**
- Landsat thematic mapper imagery of the Siple Coast. Bindschadler, R.A., et al. [1988, p.214-215, eng] **44-2139**
- New map of the Mittlaugkat glacier: a preliminary report. Hasholt, B., [1987, p.19-21, eng] **44-2584**
- Surface topography of the Greenland ice sheet from satellite radar altimetry. Bindschadler, R.A., et al. [1989, 105p., + 18 maps, eng] **44-2948**
- Topographic surveys**
- Radar altimetric studies of polar ice. Drinkwater, M.R., [1987, 231p., eng] **44-438**
- Electromagnetic studies on the Siple Coast, 1987-1988. Bentley, C.R., et al. [1988, p.56-58, eng] **44-1692**
- Topography and surface features of Larsen Ice Shelf. Ridley, J.K., et al. [1989, p.299-310, eng] **44-1890**
- Topography, microclimates and vegetation of eskers in Finland. Rikkinen, J., [1989, p.87-150, eng] **44-3616**
- Topography**
- Hydrology of ice caps in volcanic regions. Bjornsson, H., [1988, 139p., eng] **44-1310**
- Surface velocity variations of the lower part of Columbia Glacier. Rasmussen, L.A., [1989, 52p., eng] **44-1796**
- Recent measurements of sea ice topography in the eastern Arctic. Krabill, W.B., et al. [1990, p.132-136, eng] **44-3836**
- Processes determining the bottom topography of multisea arctic sea ice. Wadhams, P., et al. [1990, p.146-141, eng] **44-3837**

Topography (cont.)

- Fractal description of ice keel small-scale surface roughness Bishop, G.C., et al. [1990, p.141-145, eng] **44-3838**

Towers

- Snow-creep pressure on masts Larsen, J.O., et al. [1989, p.154-158, eng] **44-565**
Ice removal from broadcast towers by low-frequency vibrations Mulhern, N.D., et al. [1988, 6p., eng] **44-614**
Atmospheric boundary layer around an observation tower Aota, M., et al. [1988, p.177-185, jpn] **44-738**

Towing

See *also*: Iceberg towing

Tracked vehicles

- Vehicles for freight-hauling and for science traverses in Antarctica Mellor, M., [1988, Var. p., eng] **44-224**
Impact of vehicles on snow, soil and vegetation Zhidkov, V.A., et al. [1989, p.124-131, rus] **44-346**
Initial production test of the M973 small unit support vehicle Foster, G.K., et al. [1989, 128p. + appends., eng] **44-478**
Final letter report, comparison test (CPT) of the M973 small unit support vehicle (SU SV) Moody, D.S., et al. [1989, 48p. + appends., eng] **44-1846**
Impact of vehicles on snow, soil, and vegetation cover in the North Zhidkov, V.A., et al. [1989, p.131-141, eng] **44-2441**

Tracking (position)

See *also*: Radar tracking

Traction

- Performance of trucks braking on ice Ervin, R.D., et al. [1987, 201p., eng] **44-1096**
Performance of nonmetal tire chains in Hokkaido Sato, H., et al. [1989, p.97-102, jpn] **44-3567**
Performance of an omni-directional wheel on snow and ice Blaisdell, G.S., [1989, 21p. + appends., eng] **44-3745**
Thawing soil strength measurements for predicting vehicle performance Shoop, S.A., [1989, 18p., eng] **44-1933**

Tractors

- Vehicles for freight-hauling and for science traverses in Antarctica Mellor, M., [1988, Var. p., eng] **44-224**
Evaluation of the Caterpillar Challenger tractor for use in Antarctica Blaisdell, G.L., et al. [1989, 12p. + figs., eng] **44-3762**

Trafficability

- Winter chaos: can we buy our way out of it Hunt, R.D., et al. [1988, p.429-434, eng] **44-3929**
See *also*: Soil trafficability

Training

See *also*: Education

Transformations

- Models of surface wave transformation in an ice-covered sea Tkachenko, V.A., et al. [1988, p.41-46, rus] **44-2281**
See *also*: Metamorphism (snow); Permafrost transformation; Phase transformations

Transition heating

- Comparison of freezing control strategies for residential air-to-air heat recovery ventilators Phillips, E.G., et al. [1989, p.484-490, eng] **44-3032**

Transmission

- Scattering and absorption of light by sea ice Buckley, R.G., et al. [1990, p.49-52, eng] **44-3817**
See *also*: Light transmission; Radiation absorption

Transmission line towers

See *also*: Power line supports

Transmission lines

- Study of ice shedding phenomenon on cables Druze, J., et al. [1990, p.143-148, eng] **44-2217**
Prediction of ice accretion on a rotating transmission line Skelton, P.I., et al. [1988, p.23-35, eng] **44-2393**
Mathematical models for ice accretion on conductors, pt. 1 Larcombe, P.J., et al. [1988, p.217-236, eng] **44-2394**

See *also*: Power lines

Transmissivity

- Function of dielectric constant of nonhomogeneous hail particles Marchenko, P.F., et al. [1989, p.35-41, rus] **44-866**
Optical effects in falling snow Hutt, D.L., [1989, p.247-251, eng] **44-4022**
Alternate use of two different emitters in radar observation of mixed precipitation Giguere, A., [1989, p.252-256, fre] **44-4023**
See *also*: Light transmission; Radiation absorption; Transmission

Transparency

- Heating of dust particles enclosed in icy material Kozle, N.L., et al. [1989, p.193-195, eng] **44-525**
Determining atmospheric transparency and turbidity-causing components Kuznetsov, I.S., et al. [1989, p.42-48, rus] **44-1036**
See *also*: Light transmission; Turbidity

Transpiration

See *also*: Evapotranspiration

Transportation

- "Folk glaciology" in Central Asia Glazyrin, G.E., et al. [1989, p.35-43, rus] **44-333**
Technical and ecological aspects of transportation in the North Migrenko, G.S., et al. [1989, p.107-113, rus] **44-4520**
Ecological problems during construction of main pipelines Vantik, V.K., et al. [1989, p.118-123, rus] **44-4522**
See *also*: Fuel transport; Marine transportation; Military transportation; Petroleum transportation; Tethered ships
Traverses
JARE glaciological data collected in 1988-1989 Watanabe, O., et al. [1990, 77p., eng] **44-3448**
Tree lines
See *also*: Forest lines
Trees (plants)
Establishment of *Salix alaxensis* on a gravel pad in arctic Alaska Bishop, S.C., et al. [1989, p.575-583, eng] **44-321**
Spruce annual rings and glacier oscillation, Terskeri Alatau Solomina, O.N., et al. [1989, p.103-110, rus] **44-343**
Tree damage from river ice along the Grande Ronde River in Oregon Filip, G.M., et al. [1989, p.211-213, eng] **44-2278**
Forest transitions and buried glacial outwash Dodge, S.L., [1989, p.137-144, eng] **44-2619**
Wind speed and snow evaporation in a stand of juvenile lodgepole pine in Alberta Bernier, P.Y., [1990, p.309-314, eng] **44-3602**
Tree morphology as an estimator of average snow depth Woolridge, G.L., et al. [1989, p.232-236, eng] **44-4019**

Triton

- Neptune Kinoshita, J., [1989, p.82-91, eng] **44-3258**

Trucks

See *also*: Motor vehicles

Tundra

- Using large-scale mapping to study arctic tundra vegetation Kholod, S.S., [1989, p.61-71, rus] **44-37**
Microflora of tundra soils Parinkina, O.M., [1989, 159p., rus] **44-52**
Tundra ponds of the Yukon Delta, Alaska, and their macroinvertebrate communities Maciolek, J.A., [1989, p.193-206, eng] **44-86**
Phytomass reserve and structure in patchy tundras of the eastern shore of Lake Taymyr Pospelova, E.B., et al. [1984, p.12-18, eng] **44-280**
Methane flux time series for tundra environments Whalen, S.C., et al. [1988, p.399-409, eng] **44-374**
Phosphorus assimilation by roots of tundra sedge Kroehler, C.J., et al. [1988, 10p., eng] **44-672**
Mapping arctic tundra vegetation types using satellite data Snow, D., et al. [1989, p.1451-1457, eng] **44-772**
Recovery of mountain tundra with unsorted circles after a fire Pavlov, B.A., [1989, p.51-59, eng] **44-1002**
Freezing and thawing of tundra lakes Brochu, M., [1988, p.127-128, fre] **44-1107**
Decomposition and mycorrhizal processes in tundra soils Linkins, A.E., [1987, 5p., eng] **44-1248**
Wetland soils and vegetation, arctic foothills, Alaska Walker, M.D., et al. [1989, 89p., eng] **44-1600**
Seasonal geochemistry of an arctic tundra drainage basin Everett, K.R., et al. [1989, p.279-289, eng] **44-1615**
Hydrological regime in tundra plain of island in Bering Sea Nakko, K., et al. [1986, p.1-13, eng] **44-1616**
Conductive heat flux through active layer in tundra plain Urakami, K., [1986, p.29-35, eng] **44-1617**
Thermal regime of the soils near the northern Yenisei Skrabbin, P.N., et al. [1989, 175p., rus] **44-1854**
Airphoto analysis of winter seismic disturbance in northeastern Alaska Reynolds, M.K., et al. [1989, p.162-167, eng] **44-1935**
Effects of pit fluids on water quality of tundra ponds in Alaska West, R.L., et al. [1987, 49p., eng] **44-2943**
Geobotanical regionalization of the non-chernozem zone of the European RSFSR Aleksandrova, V.D., et al. [1989, 64p., rus] **44-3577**
All-Union conference on interactions of organisms in the tundra ecosystems, Yarkutsk, Sep. 5-8, 1989. Summaries [1989, 194p., rus] **44-3578**
Man and nature in the North: harmony of contrasts Zimov, S.A., [1990, p.118-132, rus] **44-3758**
Consumption of atmospheric methane by tundra soils Whalen, S.C., et al. [1990, p.160-162, eng] **44-4037**
Nitrogen in the arctic ecosystems Grunina, I.K., et al. [1990, p.135-140, eng] **44-4112**
All-Union conference on ecological impact of oil and gas industry, 1988 [1989, 195p., rus] **44-4505**
Oil and gas industry in tundra and ecological safety Mazur, I.I., et al. [1989, p.49-57, rus] **44-4511**
Ecological protection of pipeline routes, European North Akulshina, N.P., et al. [1989, p.65-72, rus] **44-4513**
Engineering effects on tundra in oil-production regions Tentukov, M.P., [1989, p.78-84, rus] **44-4515**
Ecological problems during construction of main pipelines Vantik, V.K., et al. [1989, p.118-123, rus] **44-4522**
Ecological effects of the Yamburg-Tsentr pipelines Satarov, V.N., [1989, p.123-129, rus] **44-4523**
Tundra re-cultivation Archegeva, I.B., et al. [1989, p.139-143, rus] **44-4526**

- Design of facilities for oil and gas industry in tundra Rubanova, N.A., et al. [1989, p.165-169, rus] **44-4530**

See *also*: Alpine tundra; Forest tundra

Tunneling (excavation)

- Key reception suits roadheader down to the ground Weber, B.H., [1989, p.19-21, eng] **44-322**
General report on engineering design Galavresi, F., [1989, p.477-479, eng] **44-922**
General report on case histories Galavresi, F., [1989, p.509-511, eng] **44-927**
Short tunnel in Seattle frozen using liquid nitrogen cascade lances Maishman, D., [1989, p.563-562, eng] **44-935**
Application of ground freezing at Rogers Pass, Canada Macfarlane, I.M., et al. [1989, p.563-564, eng] **44-936**

Tunnels

- Using granular ice in erecting structures of complex forms Smorygin, G.I., [1989, p.118-127, rus] **44-2162**
Underground passages with nonuniform frozen soil base swelling Abzhalmov, R., [1989, p.563-562, eng] **44-2576**
Liquid water content and droplet size calibration of the NASA Lewis Ice Research Tunnel (LCI) R.E., [1989, 28p., eng] **44-2812**
Thickness of thermal insulation for tunnel frost prevention Mikami, T., et al. [1989, p.603-608, jpn] **44-2921**
Analysis of frost preventing measure at Hohenkvo tunnel Takeichi, K., et al. [1989, p.225-242, jpn] **44-3179**
Freezing index and freezing depth in rock of road tunnels Ishizuka, T., et al. [1989, p.43-48, jpn] **44-3563**
See *also*: Ice tunnels; Railroad tunnels; Snow tunnels

Turbidity

- Use of SPOT HRV data in the Corps of Engineers dredging program Merry, C.J., et al. [1988, p.1295-1299, eng] **44-435**
Sediment transport and deposition in a temperate glacial fjord, Glacier Bay, Alaska Cowan, E.A., [1989, 483p., eng] **44-963**
Determining atmospheric transparency and turbidity-causing components Kuznetsov, I.S., et al. [1989, p.42-48, rus] **44-1036**
See *also*: Transparency; Visibility
Turbulence
Local convective heat transfer coefficients Newton, J.L., et al. [1988, 17p., eng] **44-1100**
Predictions and studies with a one-dimensional ice ocean model. Final report Riedinger, S.H., et al. [1987, 124p., eng] **44-1286**
Three-wavelength scintillation measurement of turbulent heat fluxes Andreas, E.L., [1990, p.74-77, eng] **44-3355**

Turbulent boundary layer

- Calculation of flow over airfoils Cebeci, T., [1989, p.853-861, eng] **44-400**
Planetary boundary layer over the polynya downwind of a Bering Sea island Walter, B.A., [1989, p.255-282, eng] **44-411**
Two-dimensional numerical hailcloud model Xu, H.H., et al. [1989, p.200-211, eng] **44-529**
Boundary layer measurements beneath ice [1989, 6p., eng] **44-1629**
Boundary layer under fast ice Shirasawa, K., et al. [1989, p.90-102, jpn] **44-3128**
Surface energy balance near an antarctic ice shelf front Heinemann, G., et al. [1990, p.123-158, eng] **44-3527**
Some measurements of turbulence over an antarctic ice shelf King, J.C., [1990, p.379-400, eng] **44-3569**

Turbulent flow

- Analysis of turbulent flow freezing transients Thomason, S.B., et al. [1989, p.368-377, eng] **44-1009**
Diode-laser-doppler velocimeter and medium resolution turbulence cluster measurements McPhee, M.G., [1985, 24p., eng] **44-1104**
Study of instability phenomena on ice-water interfaces Kolodko, J., [1989, p.107-115, eng] **44-2027**
Interaction of an ocean eddy with a marginal ice zone ocean front Smith, D.C., IV., et al. [1990, p.278-281, eng] **44-3864**

Turf

See *also*: Peat

U.S.S.R.**—Siberia**

- Fluxial outbursts and cryokarstic processes on Mars and in Siberia Costard, F., [1990, p.97-104, fre] **44-3534**

Ultimate strength

- Deformation of steel at low temperatures Kovalchuk, B.I., et al. [1989, p.126-129, eng] **44-3880**
Test methods for crack-resistance of structural steels under dynamic load Basko, E.M., et al. [1990, p.28-32, rus] **44-4144**

Ultrasonic tests

- Evaluation of an acoustic snow depth sensor Bergman, J.A., [1989, p.126-129, eng] **44-513**
Acoustic measurements on soaked soils during thaw and unfrozen water content determination Deschêtrès, M.H., et al. [1989, p.551-553, eng] **44-932**
Interconnection of wetting and drying with freeze-thaw some new data Hall, K., [1988, p.1-11, eng] **44-1222**

- Use of ultrasound technique to monitor freezing and thawing of water in plants. Raschi, A., et al. [1989, p.411-418, eng] **44-2946**
- Ultraviolet radiation**
Amorphization of cubic ice by ultraviolet radiation. Kouchi, A., et al. [1990, p.134-135, eng] **44-3115**
- Underground cable**
Underground cables and frost shattering of ground. Senuk, D.P., et al. [1990, p.5-9, rus] **44-4292**
- Underground facilities**
See *also*: Subsurface structures
- Underground ice**
See *also*: Ground ice
- Underground pipelines**
Norman Wells to Zama oil pipeline buried in permafrost. Pilon, J., et al. [1989, 331p., eng] **44-1496**
Analysis of reliability of polar pipelines. Kharionovskii, V.V., [1990, p.173-177, eng] **44-2080**
Alaska starts repairing miles of corroded pipes. Bloomberg, R., [1990, p.35-36, eng] **44-3048**
Effect of salinity of frozen soils on thermal regime of bases of underground pipelines. Suleimanov, V.A., et al. [1990, p.156-159, eng] **44-3256**
Norman Wells pipeline monitoring: geothermal observations, 1984-1987. Burgess, M.M., et al. [1990, p.233-244, eng] **44-3627**
Performance of the Trans-Alaska Pipeline System fuel gas supply pipeline. Allen, J.V., et al. [1990, p.389-396, eng] **44-3686**
Buried water and sewer utility lines in Barrow, AK. Hazen, B., et al. [1990, p.397-402, eng] **44-3687**
Permafrost and terrain research and monitoring: Norman Wells pipeline volume II: research and monitoring results—1983-1988. MacInnes, K.L., et al. [1990, 204p., eng] **44-3807**
Simulated oil spill from a pipeline in the Subarctic. Kershaw, G.P., [1990, p.176-183, eng] **44-4286**
Determination of design permafrost temperatures for pipeline anchors. Gokhman, M.R., et al. [1990, p.252-257, eng] **44-4420**
- Underground storage**
Burial of industrial wastes from gas production. Sevastianov, O.M., [1989, p.152-160, rus] **44-4528**
- Underice**
See *also*: Ice bottom surface; Subglacial
- Underwater acoustics**
Environmental measurements in the Beaufort Sea. Spring 1988. Wen, T., et al. [1989, 117p., eng] **44-535**
Basin acoustics in the Arctic Ocean. Final technical report. Dyer, L., [1988, 10p., eng] **44-723**
Submarine warfare in the Arctic: option or illusion. Sakitt, M., [1988, 93p., eng] **44-823**
Arctic ice attenuation model study. Mellen, R.H., et al. [1987, 36p., eng] **44-851**
Variability of the ambient noise field associated with the ice zone. Biggs, K.P., [1988, 112p., eng] **44-857**
Effect of correlation on signal detection in arctic under-ice noise. Nielsen, P.A., et al. [1988, 8p., eng] **44-859**
Port and ocean engineering under arctic conditions. Proceedings, Vol.2. [1988, 111p., eng] **44-860**
Responses of migrating narwhal and beluga to icebreaker traffic at the Admiralty Inlet ice-edge, N.W.T. in 1986. Cosens, S.E., et al. [1988, p.39-54, eng] **44-861**
Evidence of glacial seismic events in the acoustic environment of humpback whales. Miles, P.R., et al. [1988, p.95-108, eng] **44-862**
Phase and travel time of acoustic modes in high latitude seas. Lynch, J.F., et al. [1989, 9p., eng] **44-996**
Underwater signal processing in the Arctic Sea. Shanan, S.S., [1989, 132p., eng] **44-1019**
Ray scattering from a collection of ice keels. Gordon, D.F., [1987, 16p., eng] **44-1054**
Analysis of central arctic noise events. Townsend-Manning, M., [1987, 186p., eng] **44-1079**
Propagation of sound generated on the ice surface. Francois, R.E., et al. [1989, 7p., eng] **44-1628**
Boundary layer measurements beneath ice. [1989, 6p., eng] **44-1629**
Underwater acoustic backscatter from a model of arctic ice. Browne, M.J., [1987, 161p., eng] **44-1632**
Propagator matrix for acoustic wave propagation through anisotropic porous media. Yamamoto, T., et al. [1986, p.463-472, eng] **44-1745**
Transient underwater noise from animals and ice. Cummings, W.C., et al. [1989, 17p., eng] **44-1850**
Arctic ocean acoustics in CEAREX. Baggeroer, A.B., [1989, p.2-3, eng] **44-3133**
Ambient noise studies in the arctic basin. Bourke, R.H., et al. [1989, p.4-6, eng] **44-3134**
Arctic LSW torpedo G&C program. Ingram, R.D., [1989, p.152-153, eng] **44-3146**
Ice strech, h estimates from submarine topsounder data. DiMarco, R., et al. [1989, p.425-426, eng] **44-3160**
Measurement of acoustic pulses propagated through arctic internal waves. Ewart, T.F., et al. [1990, p.129-139, eng] **44-3286**
Acoustic mode coherence in the Arctic Ocean. Polcar, J.J., [1986, 297p., eng] **44-3377**
Sound waves at the water-sea ice interface. Weng, W., et al. [1990, p.2481-2488, eng] **44-4276**
- High frequency transmissions propagated in the marginal ice zone. Catipovic, J.A., et al. [1990, p.185-190, eng] **44-4280**
- Underwater ice**
Ice beds in ice-marine sediments as a product of cryogenic diagenesis. Danilov, I.D., [1989, p.1201-1203, rus] **44-163**
Effect of correlation on signal detection in arctic under-ice noise. Nielsen, P.A., et al. [1988, 8p., eng] **44-859**
Possibility of freezing sea bottom deposits in the arctic seas. Shpolianskaia, N.A., [1989, p.72-78, rus] **44-2612**
Development of an underwater frazil-ice detector. Daly, S.F., et al. [1990, p.77-82, eng] **44-3541**
- Underwater permafrost**
See *also*: Permafrost beneath lakes; Permafrost beneath rivers; Subsea permafrost
- Underwater structures**
See *also*: Hydraulic structures
- Unfrozen water content**
Structure of poly(vinyl alcohol) hydrogel prepared by repeated freezing and melting. Nagura, M., et al. [1989, p.762-765, eng] **44-43**
Geocryological-hydrogeological studies of free water transfer zones. Piguzova, V.M., ed. [1989, 160p., rus] **44-142**
Formation of cryopegs in areas of man-made pollution. Anisimova, N.P., et al. [1989, p.98-106, rus] **44-155**
Annual temperature variation and the level of man-made cryopegs. Andreev, S.V., [1989, p.106-112, rus] **44-156**
Transient processes sounding method for searching and mapping cryopegs. Nim, I.U.A., et al. [1989, p.112-125, rus] **44-157**
Non-equilibrium behaviour of isotherm freezing of water in lysozyme. Zhang, J.Z., [1989, p.1375-1380, eng] **44-389**
Wet-snow metamorphism in relation to liquid water content. Brun, E., [1989, p.22-26, eng] **44-542**
Acoustic measurements on soaked soils during thaw and unfrozen water content determination. Deschâtres, M.H., et al. [1989, p.551-553, eng] **44-932**
Mathematical model of frost heave in granular materials. Piper, D., et al. [1989, p.569-570, eng] **44-939**
Cryogenic migration of ions in ice-saturated dispersed soils. Lebedenko, I.U.P., [1989, p.21-30, rus] **44-1253**
Microwave measurements of ice and snow. Hallikainen, M.T., et al. [1988, p.69-83, eng] **44-1427**
Self-similar solution of the thawing soil problem. Maksimov, A.M., et al. [1989, p.914-919, eng] **44-1518**
Thermal conductivity of permafrost soils. Gavril'ev, R.I., [1989, p.701-706, eng] **44-1833**
Hydrothermal problems of frozen soils. Savvinov, D.D., ed. [1988, 126p., rus] **44-1958**
Moisture regime of cultivated frozen flood-plain meadow soils. Baishiev, S.I., [1988, p.30-37, rus] **44-1961**
Moisture and temperature dynamics of frozen soils. Savvinov, G.N., [1988, p.49-59, rus] **44-1964**
Soil freezing and soil water in sandy loam. Black, P.B., et al. [1989, p.2205-2210, eng] **44-2135**
Water crystallization in capillary-porous media. Podenko, I.S., et al. [1989, p.36-41, rus] **44-2149**
Determining the phase composition of moisture in frozen disperse systems. Podenko, I.S., et al. [1989, p.52-56, rus] **44-2152**
Determining the volume of unfrozen moisture by centrifugal separation. Sheveleva, N.N., [1985, p.21-26, rus] **44-2366**
Phase composition of water in freezing and frozen soils. Kondakov, V.V., et al. [1989, p.21-27, rus] **44-2517**
Freezing of concentrated aqueous polyvinyl alcohol solutions. Lozinski, V.I., et al. [1989, p.685-690, rus] **44-2572**
Hydraulic conductivity and unfrozen water content of frozen silt. Black, P.B., et al. [1990, p.323-329, eng] **44-2646**
Soil freezing in a subarctic deciduous forest. Hinzman, L.D., et al. [1990, p.21-30, eng] **44-2962**
Predicting unfrozen water content behavior of a soil. Black, P.B., et al. [1990, p.54-60, eng] **44-2966**
Solute redistribution during soil freezing. Van Loon, W.K.P., et al. [1990, p.186-194, eng] **44-2982**
Modeling of solute rejection in freezing soils. Panday, S.M., et al. [1990, p.195-201, eng] **44-2983**
Unfrozen water contents of undisturbed and remolded Alaskan silt. Tice, A.R., et al. [1989, p.103-111, eng] **44-3094**
Electrical conductance measurement of soil frost. Hayhoe, H.N., et al. [1988, p.195-200, eng] **44-3510**
Unfrozen water as a function of void ratio in a clayey silt. Konrad, J.M., [1990, p.49-55, eng] **44-3539**
Transport of water due to a temperature gradient in unsaturated frozen clay. Nakano, Y., et al. [1990, p.57-75, eng] **44-3540**
Unfrozen water content of saline permafrost. Hivon, L., et al. [1990, p.257-262, eng] **44-3670**
Unfrozen water content and hydraulic conductivity of frozen soil. Black, P.B., [1990, 7p., eng] **44-3987**
- Field frost heave measurement and prediction during periods of seasonal frost. Hayhoe, H.N., et al. [1990, p.393-397, eng] **44-4412**
Moisture transfer and ice accumulation in dispersed soils. Ianitskil, P.A., [1990, p.44-50, rus] **44-4533**
- United Kingdom**
Snow survey of Great Britain 1988-89. [1989, 21p., eng] **44-1224**
Recommendations on cold weather concreting in the U.K. Pink, A., [1985, p.29-39, eng] **44-1973**
- United States**
U.S. Federal arctic research. Devine, J.S., et al. [1989, p.65-74, eng] **44-130**
Cold-weather concreting in the U.S.A. Scanlon, J.M., et al. [1985, p.123-137, eng] **44-1979**
Climatology of statewide extreme temperatures during winter months in the coterminous United States. Parker, A.J., [1989, p.349-367, eng] **44-2638**
- Alaska**
Winter highway construction: final report. Bennett, F.L., [1987, 33p., eng] **44-204**
Bedrock geology of the Koyukuk basin, Brooks Range, and Arctic Slope. Muir, G., ed. [1989, 2 vols., append., eng] **44-427**
Quaternary geology and permafrost between Fairbanks and Anchorage. Pewe, T.L., ed. [1989, 54p., eng] **44-431**
Alaskan geological and geophysical transect. Nokleberg, W.J., ed. [1989, 131p., eng] **44-432**
Glaciers and glaciology of Alaska. Krimmel, R.M., et al. [1989, 61p., eng] **44-433**
Significant metalliferous lode deposits and placer districts of Alaska. Nokleberg, W.J., et al. [1987, 104p., append., eng] **44-533**
Natural oil seeps in the Alaskan marine environment. Final report. Becker, P.R., et al. [1988, 123p., eng] **44-700**
Forecasting of superstructure icing for Alaskan waters. Feit, D.M., [1987, p.5-10, eng] **44-2084**
Aromatic hydrocarbons in the Alaskan marine environment. Anderson, J.W., et al. [1986, 123p., eng] **44-2108**
Volcanic ash soils in Alaska. Ping, C.L., et al. [1989, p.8-28, eng] **44-2138**
Absence of eruptive particles in arctic aerosols. Sievering, H., et al. [1989, p.2495-2499, eng] **44-2262**
Alaska interim land cover mapping program: final report. Fitzpatrick-Lins, K., et al. [1989, 10p., eng] **44-2951**
Use of off-road vehicles and mitigation of effects in Alaska permafrost environments: a review. Slaughter, C.W., et al. [1990, p.63-72, eng] **44-3049**
Glacial meltwater input to the Alaska Coastal Current: evidence from oxygen isotope measurements. Kipphut, G.W., [1990, p.5177-5181, eng] **44-3277**
Cold regions engineering: climatic warming concerns for Alaska. Esch, D.C., et al. [1990, p.6-14, eng] **44-3385**
Thermal regime of permafrost in Alaska and predicted global warming. Osterkamp, T.F., et al. [1990, p.38-42, eng] **44-3389**
Jökulhlaup involving a potholed glacier in AK. Sturm, M., et al. [1990, p.125-126, eng] **44-3731**
Water sampling stations in AK as of Sep. 1988. Stull, P.J., et al. [1989, 189p., eng] **44-3737**
Origin of natural gas hydrates on the North Slope of Alaska. Collett, T.S., et al. [1989, p.3-9, eng] **44-3802**
Activities of the Alaska District Water Resources Division. U.S. Geological Survey, 1990. Snyder, E.F., comp. [1990, 21p., eng] **44-3806**
- Alaska—Alert**
Boundary layer ozone depletion during AGASP-II. Nickle, R.E., et al. [1989, p.2443-2449, eng] **44-2257**
- Alaska—Anchorage**
CO modeling in Alaska. Johnson, R.A., et al. [1989, p.191-207, eng] **44-1762**
- Alaska—Arctic National Wildlife Refuge**
Airphoto analysis of winter seismic disturbance in northeastern Alaska. Reynolds, M.K., et al. [1989, p.362-367, eng] **44-1935**
Permafrost temperatures in the Arctic National Wildlife Refuge. Osterkamp, T.F., [1988, p.191-193, eng] **44-3509**
- Alaska—Baldwin Peninsula**
Pleistocene glaciomarine deposits on Baldwin Peninsula, Alaska. Huston, M.M., et al. [1990, p.111-114, eng] **44-4173**
- Alaska—Barrow**
Environmental hazards of oil and gas development at Barrow, AK. Truett, J.C., ed. [1984, 229p., eng] **44-2107**
In-situ measurements of physical and chemical properties of arctic haze. Clarke, A.D., [1989, p.255-266, eng] **44-2179**
Correlation among combustion effluent species at Barrow, AK. Hansen, A.D.A., et al. [1989, p.283-299, eng] **44-2181**
Barrow surface aerosol 1976-1986. Bodhaine, B.A., [1989, p.2357-2369, eng] **44-2251**
Resolution of ionic components of late winter arctic aerosols. Li, S.M., et al. [1989, p.2387-2399, eng] **44-2253**

United States

—Alaska—Barrow (cont.)

- Ionic geochemistry of late winter arctic aerosols. Li, S.M., et al. 1989, p.2401-2415, eng 44-2254
- Atmospheric transport during AGASP-II. Herbert, G.A., et al. 1989, p.2521-2535, eng 44-2266
- Major haze event near Point Barrow, Alaska. Bridgman, H.A., et al. 1989, p.2537-2549, eng 44-2267
- Buried water and sewer utility lines in Barrow, AK. Hazen, B., et al. 1990, p.397-402, eng 44-3687

—Alaska—Bethel

- Radar study of active layer thicknesses in wet tundra in AK. Doolittle, J.A., et al. 1990, p.175-182, eng 44-4050

—Alaska—Bradley Lake

- Hydroelectric power from glacier runoff at Bradley Lake, Alaska. Lawson, M., 1989, p.28-30, eng 44-310

—Alaska—Bristol Bay

- Oceanographic and climatological atlas of Bristol Bay. Final report. Wise, J.L., et al. 1987, 192p., eng 44-674

—Alaska—Brooks Range

- Glacial geology of the Brooks Range. Hamilton, T.D., 1989, p.23-26, eng 44-428

- Ecological relationships of arctic-alpine vegetation in Brooks Range, AK. Cooper, D.J., 1989, p.279-295, eng 44-1092

- Wetland soils and vegetation, arctic foothills, Alaska. Walker, M.D., et al. 1989, 89p., eng 44-1600

—Alaska—Burroughs Glacier

- Organic carbon accumulation in soils near Burroughs Glacier. James, L.A., 1988, p.50-70, eng 44-49

- Meltwater drainage from temperate glacial ice. Simmons, R.J., 1990, 58p., eng 44-3265

—Alaska—Chukchi Sea

- Mineralogical analyses of Chukchi Sea sediments. Lucpke, G., et al. 1989, 12p., eng 44-3768

—Alaska—Columbia Glacier

- Surface velocity variations of the lower part of Columbia Glacier. Rasmussen, L.A., 1989, 52p., eng 44-1796

—Alaska—Cook Inlet

- Modern clastic depositional systems of Southcentral Alaska. Hayes, M.O., et al. 1989, 42p., eng 44-461

—Alaska—Cooper River Delta

- Modern clastic depositional systems of Southcentral Alaska. Hayes, M.O., et al. 1989, 42p., eng 44-461

—Alaska—Fairbanks

- Water and suspended solids discharge during snowmelt. Chacho, E.F., Jr., 1990, p.167-173, eng 44-3659

—Alaska—Fort Wainwright

- Thermal infrared survey of winter trails at Fort Wainwright. Collins, C.M., et al. 1990, 16p., eng 44-3988

—Alaska—Glacier Bay National Park

- Stream development in Glacier Bay National Park, Alaska. U.S.A. Sidle, R.C., et al. 1989, p.350-363, eng 44-2008

—Alaska—Gulf of Alaska

- Glacimarine sediments in the Gulf of Alaska. Carlson, P.R., 1989, p.391-416, eng 44-3943

—Alaska—Hubbard Glacier

- Advance of Hubbard Glacier and 1986 outburst of Russell Fiord, Alaska, U.S.A. Mayo, L.R., 1989, p.189-194, eng 44-572

—Alaska—Icy Bay

- Late Holocene fluctuations of the fiord glacier system in Icy Bay, Alaska, U.S.A. Porter, S.C., 1989, p.364-379, eng 44-2009

—Alaska—Kandik River

- Thermal maturity and organic geochemistry of the Kandik basin region, east-central Alaska. Underwood, M.B., et al. 1989, 41p., eng 44-3764

—Alaska—Kenai Mountains

- Neoglaciation in the southern Kenai Mountains, Alaska. Wiles, G.C., et al. 1990, p.319-322, eng 44-4218

—Alaska—King Cove

- Reconnaissance geology and exploration geochemistry of King Cove, Alaska Peninsula. DuBois, G.D., et al. 1989, 23p., eng 44-3763

—Alaska—Kivalina

- Design of AIDA seaport, Chukchi Sea shore, Alaska. Guillermo, E.C., et al. 1988, p.633-660, eng 44-1180

—Alaska—Larsen Bay

- Small boat harbor Larsen Bay, Alaska. Draft detailed project report with environmental assessment. 1989, 153p. + append., eng 44-439

—Alaska—Malaspina Glacier

- Are backscatter features from the Malaspina Glacier surface expressions of subglacial morphology. Molnia, B.F., et al. 1989, p.701-710, eng 44-3714

—Alaska—Nome

- Construction of the port of Nome, Alaska. Campion, D., et al. 1988, p.627-632, eng 44-1179

Offshore placer drilling technology: a case study from

- Nome, Alaska. Bronston, M.A., 1990, p.26-31, eng 44-2382

—Alaska—North Slope

- Temperature and depth of permafrost on the arctic slope of Alaska. Lachenbruch, A.H., et al. 1988, p.645-656, eng 44-392

- River-ice mounds on Alaska's North Slope. Arcone, S.A., et al. 1989, p.288-290, eng 44-1558

- Hydrocarbon gas in gas-hydrate interval, North Slope. Collett, T.S., et al. 1990, p.279-287, eng 44-3361

- Investigation of the LIZ-3 Dew Line Station water supply lake. Kovacs, A., 1990, 10p., eng 44-3752

—Alaska—Norton Sound

- Atlas of oceanographic information for Norton Sound, Alaska. Final report. Ostrom, J.E., et al. 1987, 143p., eng 44-679

- Mesoscale meteorology of the Norton Sound region. Kozo, T.L., 1988, p.163-181, eng 44-1137

—Alaska—Point Barrow

- Nearshore ice conditions from radar data, Point Barrow area, Alaska. Shapiro, L.H., et al. 1989, 43p., eng 44-1829

—Alaska—Prudhoe Bay

- Karluk ice island. Bugno, W., et al. 1990, p.9-17, eng 44-2201

- Atmospheric dispersion in the Arctic: winter-time boundary-layer measurements. Guenther, A., et al. 1989, p.339-366, eng 44-2432

- Effects of pit fluids on water quality of tundra ponds in Alaska. West, R.L., et al. 1987, 49p., eng 44-2943

- Causeway effects on oceanographic processes near Prudhoe Bay. Hale, D.A., et al. 1989, 50p., eng 44-3772

—Alaska—Seward

- Economical approach to receiving coal by rail in the sub-arctic environment. Swigart, B., et al. 1986, p.45-56, eng 44-2188

—Alaska—Strandline Lake

- Jökulhlaups from Strandline Lake, Alaska (especially the 1982 event). Sturm, M., et al. 1989, 19p., eng 44-395

—Alaska—Tanana River

- Soil nitrogen changes during primary succession on a floodplain in Alaska, U.S.A. Walker, L.R., 1989, p.341-349, eng 44-2007

—Alaska—Toolik Lake

- Differences in growth and nutrient use among arctic plant growth forms. Chapin, F.S., III, et al. 1989, p.73-80, eng 44-2586

—Alaska—Unimak Pass

- Impact of offshore drilling on Unimak Pass and Yukon Delta. 1988, 447p., eng 44-1441

—Alaska—Wolverine Glacier

- Air temperature and precipitation at Wolverine Glacier, Alaska. Mayo, L.R., et al. 1990, p.191-194, eng 44-4191

—Alaska—Yukon River Delta

- Oceanographic surveys of Chukchi Sea. Beaufort Sea, Yukon Delta. 1988, 661p., eng 44-1440

- Impact of offshore drilling on Unimak Pass and Yukon Delta. 1988, 447p., eng 44-1441

—Allegheny River

- Ice observations on the Allegheny and Monongahela rivers. Billelo, M.A., et al. 1988, 43p., eng 44-800

—California

- Effects of climate change on a river basin in California. Lettenmaier, D.P., et al. 1989, p.11-11/52, eng 44-4249

—California—Lassen Peak

- Talus fabric and particle morphology on Lassen Peak, California. Pérez, F.L., 1989, p.43-57, eng 44-108

—California—Sierra Nevada

- Snow accumulation in an alpine watershed, Sierra Nevada, CA. Elder, K., et al. 1989, p.56-63, eng 44-549

- Effects of spatial and temporal variation in snowmelt on meltwater chemistry. Williams, M.W., et al. 1989, p.285-288, eng 44-591

- Snowmelt and stream flow in the Sierra Nevada. MacDonald, L.H., 1990, 405p., eng 44-3269

—Colorado

- Lichen mortality due to late-lying snow: results of a transplant study. Benedict, J.B., 1990, p.81-89, eng 44-2663

- Microanalysis of sorted circles, Colorado Front Range. Harris, C., 1990, p.89-94, eng 44-3648

—Colorado—Animas River

- Fabric and origin of diamictites in end moraines, Animas River valley, Colorado, U.S.A. Johnson, M.D., 1990, p.14-25, eng 44-2660

—Colorado—Front Range

- Climate of Niwot Ridge, Front Range, Colorado, U.S.A. Greenland, D., 1989, p.380-391, eng 44-2010

- Weathering trends in fine debris beneath a snow patch, Niwot Ridge, Front Range, Colorado. Thorn, C.E., et al. 1989, p.307-321, eng 44-2636

—Colorado—Rio Grande

- Snow water equivalent in a mountain basin using satellite data. Rango, A., et al. 1989, p.740-745, eng 44-1201

—Colorado—Rocky Mountains

- Climatic change in the Colorado Rocky Mountains. Leonard, E.M., 1989, p.245-255, eng 44-1265

- Hydrochemistry of alpine-subalpine streams, Colorado Rocky Mountains. Stednick, J.D., 1989, p.276-282, eng 44-1266

—Colorado River

- Microwave imagery of snow cover, upper Colorado River basin. Josberger, E.G., et al. 1989, p.73-84, eng 44-114

—Colorado River Basin

- Satellite and geographic information system estimates of Colorado River Basin snowpack. Ferris, J.S., et al. 1989, p.1629-1635, eng 44-3776

—Delaware River

- Hydrologic effects of climate change in the Delaware River basin. McCabe, G.J., Jr., et al. 1989, p.1231-1242, eng 44-3114

—Idaho—Salmon River

- Salmon River ice jam control studies, interim report. Axelson, K.D., et al. 1990, 8p., eng 44-3754

—Illinois Waterway

- Ice conditions along Illinois Waterway, 1972-1985. Gatto, L.W., 1989, 112p., eng 44-2631

—Iowa—Saylorsville River

- Geographic information system for river basin. Merry, C.J., et al. 1987, p.265-269, eng 44-947

—Louisiana

- Major Arctic outbreaks affecting Louisiana. Mortimer, E.B., et al. 1988, p.5-14, eng 44-2086

—Michigan

- Multiyear trends in snowpack ion accumulation and loss, northern Michigan. Stottlemeyer, R., et al. 1990, p.721-737, eng 44-3349

—Michigan—St. Marys River

- Extended season navigation on St. Marys River. 1987, 29p. + append., eng 44-1852

—Monongahela River

- Ice observations on the Allegheny and Monongahela rivers. Billelo, M.A., et al. 1988, 43p., eng 44-800

—Montana

- Present climate and glaciation of western Montana, U.S.A. Locke, W.W., III, 1989, p.234-244, eng 44-1264

- Late Pleistocene glaciers and the climate of western Montana, U.S.A. Locke, W.W., III, 1990, p.1-13, eng 44-2659

- Cartographic modeling of snow avalanche path location within Glacier National Park, Montana. Walsh, S.J., et al. 1990, p.615-621, eng 44-4472

—Montana—Big Timber Glacier

- Dynamics of Big Timber Glacier, Montana. Murray, D.R., et al. 1989, p.183-190, eng 44-1542

—Montana—Glacier National Park

- Snow avalanche dams in Glacier National Park. Butler, D.R., 1989, p.109-115, eng 44-113

- Quaternary deglaciation and reforestation of Glacier National Park. Carrara, P.E., 1989, 64p., eng 44-4257

—Nebraska—Platte River

- Ice cover effect on river flow. Ashton, G.D., 1990, 24p., eng 44-3753

—New England

- Seasonal snowfall totals in northern New England: recent trends and variability. Suckling, P.W., et al. 1988, p.14-25, eng 44-4275

—New Hampshire

- Seasonal distribution of low flow events in New Hampshire streams with emphasis on the winter period. Melloh, R.A., 1990, p.47-53, eng 44-3029

—New Hampshire—Mount Washington

- Atmospheric icing rates with elevation on northern New England mountains, U.S.A. Ryerson, C.C., 1990, p.90-97, eng 44-2664

—Ohio—Erie, Lake

- Use of SPOT HRV data in a Corps dredging operation in Lake Erie. Merry, C.J., et al. 1987, p.49-58, eng 44-946

—Sierra Nevada

- Estimation of properties of alpine snow from Landsat Thematic Mapper. Dozier, J., 1989, p.207-215, eng 44-2596

- Monitoring atmospheric deposition in California's Sierra Nevada: a comparison of methods. McGurk, B.J., et al. 1989, p.71-79, eng 44-3036

—South Dakota—Oahe Dam

- Ice formation downstream of Oahe Dam, 1987-1988 winter. Ashton, G.D., 1988, 37p., eng 44-226

—Utah

- Remote sensing of atmospheric vapor fluxes. Uttal, T., et al. 1990, p.22-34, eng 44-3289

—Washington—Boston Glacier

- Boston Glacier research natural area, 6. Wiberg, C., et al. 1978, 16p., eng 44-1213

—Washington—Rainier, Mount

- Glacier outburst floods at Mount Rainier, Washington State, U.S.A. Driedger, C.I., et al. 1989, p.51-55, eng 44-548

—Washington—Saint Helens, Mount

- Snowmelt caused by pyroclastic surge at Mount St. Helens volcano, 1980. Watt, R.B., 1989, p.138-157, eng 44-2350

- Washington—South Cascade Glacier**
Features of the firm of South Cascade Glacier, WA.
Fountain, A.G., [1989, p.69-74, eng] 44-551
- Wisconsin**
Glacial Lake Wisconsin. Clayton, L., et al, [1989, 80p., eng] 44-2070
- Unloading**
Induction assembly for unloading frozen coal from freight cars. Koval'chuk, V.M., et al, [1988, p.67-74, rus] 44-1501
- Unsteady flow**
Unsteady flow in open channels with ice cover.
Majewski, W., et al, [1989, p.143-151, eng] 44-2031
- Upwelling**
Ice-edge upwelling off the Newfoundland coast during LIMEX. Tang, C.L., et al, [1989, p.658-681, eng] 44-2045
- Urethane foam**
See *also*: Cellular plastics
- US Army CRREL**
CRREL's snowdrift wind tunnel. Anno, Y., [1987, p.405-410, jpn] 44-2553
- USSR**
Changing climate and permafrost distribution in the Soviet Arctic. Anisimov, O.A., [1989, p.285-293, eng] 44-2133
- Geocryological surveys in the mountains of the USSR.
Severskiĭ, I.V., ed, [1989, 168p., rus] 44-3228
- Basic parameters of continentality in soil climate of lowland plains of the USSR. Dimo, V.N., et al, [1989, p.98-105, eng] 44-3251
- Reclamation of cryogenic soils in the USSR. Uglanov, I.N., [1989, p.48-51, rus] 44-3553
- Environmental protection in the Soviet North.
Shekhovtsov, A.A., [1990, p.251-255, eng] 44-4097
- All-Union conference on ecological impact of oil and gas industry, 1988. [1989, 195p., rus] 44-4505
- Altai Mountains**
Role of perennially frozen rock in the formation of ground water. Kuskovskii, V.S., et al, [1989, p.24-27, rus] 44-145
- Amur River**
Origin of the chemical composition of the ice in the Amur River. Shesterkin, V.P., [1990, p.3-12, rus] 44-4287
- Azov Sea**
Calculating ice distribution in the Azov Sea. Taran, B.M., [1989, p.138-146, rus] 44-179
- Baykal Mountains**
Cryogenic weathering of gold-quartz veins in the Baykal Mountains. Taishev, T.T., [1990, p.297-302, eng] 44-3362
- Casolian Sea**
Correlation of Pleistocene glaciations with transgressions of the Black and Caspian seas. Zubakov, V.A., [1989, p.105-110, rus] 44-1915
- Caucasus**
Meteorological effects on snowmelt runoff, Caucasus.
Ananicheva, M.D., et al, [1989, p.160-164, rus] 44-354
- Charskaya Basin**
Charskaya Basin - geographical proving ground of the BAM zone. Naprasnikov, A.T., et al, [1987, 98p., rus] 44-1875
- Chita**
Design and construction of drill piles in thawing permafrost. Rastegaev, I.K., ed, [1988, 31p., rus] 44-192
- Dzhungarskiy Alatau**
Calculating mountain glacier size using land-based and airborne radar survey data. Cherkasov, P.A., et al, [1989, p.18-37, rus] 44-1386
- Dynamics of the Nizkomorennyy rock glacier in a 35-year period. Cherkasov, P.A., [1989, p.180-216, rus] 44-1397
- Eastern Pamirs**
Satellite-supported methods for studying ice fields and underground water in the Eastern Pamirs. Topchiev, A.G., [1990, p.943-960, eng] 44-3965
- Elbrus Mountain**
Seasonal snow distribution on Mt. Elbrus. Bazhev, A.B., et al, [1989, p.154-160, rus] 44-353
- Far North**
Variations of artificial illumination in the Far North.
Dubenskaia, V.F., et al, [1990, p.41-43, rus] 44-4485
- Gydan Peninsula**
Naleds of the Yamal and Gydan peninsulas. Kritsuk, L.N., [1989, p.86-92, rus] 44-153
- Indigirka River**
Structural geomorphological mapping for engineering geology. Kostenko, N.P., et al, [1989, p.96-103, rus] 44-3709
- Issyk-Kul'**
Long-term variability in snow accumulation and avalanche activity. Borshcheva, N.M., et al, [1989, p.133-138, rus] 44-1394
- Kara Sea**
Informational possibilities of the side-looking radar system of the "Kosmos-1500" satellite. Tsybmal, V.N., et al, [1989, p.486-501, eng] 44-187
- Karelia**
Forest reclamation and swamps in Karelia. Orlov, E.D., [1988, p.44-59, rus] 44-3705
- Kazakhstan**
Glaciers, snow cover, and avalanches in the mountains of Kazakhstan. Gorbunov, A.P., ed, [1989, 224p., rus] 44-1384
- Water reserves in Kazakhstan glaciers and prospects for their use. Tokmagambetov, G.A., et al, [1989, p.5-17, rus] 44-1385
- Determining the boundaries of avalanche hazard zones in Kazakhstan. Blagoveshchenskii, V.P., [1989, p.100-109, rus] 44-1392
- Formation and breakup of ice cover. Bellinson, M.M., [1989, 216p., rus] 44-3491
- Kola Peninsula**
Soil formation in the subarctic Kola Peninsula. Nikonov, V.V., et al, [1989, 168p., rus] 44-53
- Kolyma River**
Geological indicators of former glaciations in the middle Kolyma basin. Chanysheva, M.N., [1989, p.60-67, eng] 44-1003
- Mapping of ice content and layers of permafrost. Vasil'chuk, I.U.K., et al, [1989, p.89-96, rus] 44-3708
- Structural geomorphological mapping for engineering geology. Kostenko, N.P., et al, [1989, p.96-103, rus] 44-3709
- Moscow**
Climate of Moscow for the last 30 years. Petrosyants, M.A., ed, [1989, 94p., rus] 44-3712
- Sayan Mountains**
Role of perennially frozen rock in the formation of ground water. Kuskovskii, V.S., et al, [1989, p.24-27, rus] 44-145
- Severnaya Zemlya**
Sea ice interpretation on satellite radar images. Bushuev, A.V., et al, [1989, p.359-370, eng] 44-181
- Temperature of the Akademiya Nauk Glacier, Severnaya Zemlya. Zagorodnov, V.S., et al, [1989, p.134-138, rus] 44-348
- Taymyr Peninsula**
Microflora of tundra soils. Parinkina, O.M., [1989, 159p., rus] 44-52
- Tekes River**
Water balance of the Tekes River basin. Sosodov, I.S., et al, [1989, p.151-167, rus] 44-1396
- Tien Shan**
Mass transfer of Tien Shan glaciers. Mikhaleiko, V.N., [1989, p.86-92, rus] 44-341
- Snow cover stability in the Duktan River basin, Tien Shan. Kanaev, L.A., et al, [1989, p.164-168, rus] 44-355
- Engineering and geocryological conditions in high mountains of Tien Shan. Chaus, A.K., [1989, p.62-66, rus] 44-3235
- Ice reserves and main features of the current glaciation of Tien Shan. Vilesov, E.N., et al, [1989, p.117-130, rus] 44-3240
- Geochemistry of glaciers of Ak-Shyryak. Makarov, V.N., et al, [1989, p.130-143, rus] 44-3241
- Tien Shan Mountains**
Glacial changes in the Tien Shan Mts. Serebrianniy, L.R., et al, [1989, p.81-87, eng] 44-175
- Transbaikai**
Thermal and moisture regime of seasonally freezing soils in Transbaikai. Zhelezniak, I.I., [1985, p.48-50, rus] 44-2371
- Cryo-facial features of rock streams in northern Transbaikai. Romanovskii, N.N., et al, [1989, p.75-98, rus] 44-3237
- Tyumen'**
Geology, soils and vegetation of gas condensate fields in Tyumen'. Masalkin, S.D., et al, [1989, 49p., rus] 44-3989
- Ural Mountains**
Naleds in the northern Ural. Oberman, N.G., [1989, p.67-75, rus] 44-3236
- West Siberia**
Environmental protection of West Siberia during its industrialization. Zakharov, I.U.F., et al, [1989, p.17-26, rus] 44-4508
- White Sea**
Quaternary paleoecology and geology of the seas of northern Europe. Matishov, G.G., et al, [1989, 114p., rus] 44-1910
- Yakutia**
Water regime of sandy grounds in a seasonally thawing layer. Boltsov, A.V., et al, [1989, p.27-38, rus] 44-146
- Guide to forecasting the thermal regime of soils in Yakutia. Feldman, G.M., et al, [1988, 240p., rus] 44-193
- Classification and diagnostics of cryogenic soils in Yakutia. Elovskaya, L.G., [1987, 172p., rus] 44-3492
- Cryogenesis and fertility of frozen soils in Yakutia. Elovskaya, L.G., [1989, p.253-257, rus] 44-3555
- Geocryological aspects of geology of gas deposits in Central Yakutia. Gravis, G.F., et al, [1989, p.57-65, rus] 44-4512
- Yakutsk ASSR**
Efficient use of gas condensers and crude oil in the Yakutsk ASSR. L'vova, Z.M., et al, [1989, p.72-78, rus] 44-4514
- Yamal Peninsula**
Naleds of the Yamal and Gydan peninsulas. Kritsuk, L.N., [1989, p.86-92, rus] 44-153
- Features of ballasting and straightening of railroad tracks. Lykov, V.G., et al, [1990, p.5-6, rus] 44-4482
- Developing of low-waste technology for well drilling in the Far North. Rubanova, N.A., et al, [1989, p.114-118, rus] 44-4521
- Environmental protection of areas of oil and gas development. Grodzinskiĭ, V.V., [1989, p.173-177, rus] 44-4531
- Yamburg**
Environmental protection of areas of oil and gas development. Grodzinskiĭ, V.V., [1989, p.173-177, rus] 44-4531
- Yenisey Bay**
Seasonal variations in porosity and density of ice in Yenisey Bay. Latalin, D.A., [1985, p.54-58, rus] 44-2373
- Zailiyskiy Alatau**
Liquid runoff from the Tuyuksu basin in Zailiyskiy Alatau for 1964-1984. Makarevich, K.G., [1989, p.68-79, rus] 44-1389
- Atmospheric precipitation in the high altitude region of Zailiyskiy Alatau. Sudakov, P.A., et al, [1989, p.109-125, rus] 44-1393
- Vacuum freezing**
Vacuum freezing multiple phase transformation processes. Cheng, C.Y., et al, [1987, p.139-153, eng] 44-1788
- Valleys**
Glacial valley cross-profile morphology and development. Hirano, M., et al, [1988, p.707-716, eng] 44-55
- W.J. McGee, early discoverer of glacial erosion laws. Harbor, J.M., [1989, p.419-425, eng] 44-1904
- Valley natural environment in Spitsbergen. Mizgajski, A., [1989, p.443-456, eng] 44-3062
- Glacial sculpture in bedrock valleys differing in orientation. Niini, H., [1989, p.19-24, eng] 44-4503
- Valves**
Automatic valves for water pipes in cold regions. Nagashima, Y., [1988, p.93-98, jpn] 44-2668
- Vapor**
See *also*: Water vapor
- Vapor barriers**
Vapor retarders to control summer condensation. Tobiasson, W., [1989, p.566-572, eng] 44-1361
- Vapor diffusion**
Structural inhomogeneities of the Martian cryolithosphere. Kuz'min, R.O., et al, [1989, p.121-133, eng] 44-1679
- Ice crystallization developments for the butane direct-contact process. Wiegandt, H.F., et al, [1987, p.107-126, eng] 44-1787
- Vapor pressure**
Vapor pressures of supercooled HNO₃/H₂O solutions. Hanson, D.R., [1990, p.421-423, eng] 44-3424
- Vapor transfer**
Water vapor transfer during freezing of peat moisture. Gamaiunov, N.I., et al, [1989, p.19-25, rus] 44-1383
- Mars atmospheric D/H: consistent with polar volatile theory? Jakosky, B.M., [1990, p.1475-1480, eng] 44-2293
- Variations**
Paleovariations of carbon dioxide in antarctic ice cores. Semiletov, I.P., et al, [1989, p.196-199, rus] 44-2606
- Chemistry of snow pack accumulation and melt in a deciduous forest. Robertson, E., et al, [1989, p.219-222, eng] 44-4016
- See *also*: Diurnal variations; Glacier oscillation; Periodic variations; Seasonal variations; Temperature variations
- Vegetation**
Impact of vehicles on snow, soil and vegetation. Zhidkov, V.A., et al, [1989, p.124-131, rus] 44-346
- Flora and vegetation on the Russian plain during the Pleistocene. Grichuk, V.P., [1989, 182p., rus] 44-2040
- Impact of vehicles on snow, soil, and vegetation cover in the North. Zhidkov, V.A., et al, [1989, p.131-141, eng] 44-2441
- Response of mountain big sagebrush to induced snow accumulation. Sturges, D.L., [1989, p.1035-1041, eng] 44-3169
- Rock glacier landscapes in northern Tien Shan. Severskiĭ, E.V., [1989, p.109-117, rus] 44-3239
- Effect of slope exposure on snow cover distribution in the mountains. Severskiĭ, S.I., [1989, p.152-162, rus] 44-3243
- Peat and mineral cored palsas, Schefferville, Quebec. Cummings, C.E., et al, [1990, p.95-102, eng] 44-3649
- Litter decomposition beneath deep snow in temperate climates. Taylor, B.R., [1989, p.223-227, eng] 44-4017
- Environmental protection during construction of oil and gas systems. Gritsan, O.E., et al, [1989, p.98-101, rus] 44-4518
- Ecological problems during construction of main pipelines. Vantik, V.K., et al, [1989, p.118-123, rus] 44-4522

Vegetation (cont.)

- Development of preventive methods against soil erosion in pipeline areas. Babin, L.A., et al. [1989, p.129-133, rus] **44-4524**
- See *also*: Grasses; Lichens; Mosses; Plants (botany); Protective vegetation; Revegetation; Trees (plants)
- Vegetation factors**
- River runoff during felling periods in a permafrost region. Vasilenko, N.G., et al. [1989, p.92-98, rus] **44-154**
- Vegetated platforms of Lac à l'Eau Claire, subarctic Québec. Begin, Y., et al. [1989, p.39-50, fre] **44-1031**
- Effect of vegetation on the distribution of snow cover in mountains. Severskii, S.I., [1989, p.138-145, rus] **44-1395**
- Moss assemblages of a high arctic upland. LaFarge-England, C., [1989, p.491-504, eng] **44-1528**
- Primary factors affecting the radar image tint. Klishes, T.M., [1985, p.62-68, rus] **44-2375**
- Tillage and crop residue effects on soil frost depth. Rickerl, D.H., et al. [1990, p.31-35, eng] **44-2963**
- Runoff from frozen soils. Seyfried, M.S., et al. [1990, p.125-134, eng] **44-2975**
- Effects of tillage and residue on frozen soils. Bidlake, W.R., et al. [1990, p.231-238, eng] **44-2989**
- Soil thaw as influenced by small grain residue color. Sharratt, B.S., et al. [1990, p.290-294, eng] **44-2997**
- Vegetation effects on soil thermal regimes. Hayhoe, H.N., et al. [1990, p.61-71, eng] **44-3004**
- Effect of extreme snowcover on feeding-site selection by woodland caribou. Brown, W.K., et al. [1990, p.161-168, eng] **44-3025**
- Soil freezing in the taiga zone of the European USSR. Rubtsov, M.V., et al. [1989, p.116-122, eng] **44-3252**
- Influences of deforestation on snowmelt runoff. Shimizu, T., [1990, p.29-34, jpn] **44-3404**
- Vegetation patterns**
- Using large-scale mapping to study arctic tundra vegetation. Kholod, S.S., [1989, p.61-71, rus] **44-37**
- Phytomass reserve and structure in patchy tundras of the eastern shore of Lake Taymyr. Pospelova, E.B., et al. [1984, p.12-18, eng] **44-280**
- Vegetation and summer climate patterns in Queen Elizabeth Is. Edlund, S.A., et al. [1989, p.3-23, eng] **44-488**
- Mapping arctic tundra vegetation types using satellite data. Stow, D., et al. [1989, p.1451-1457, eng] **44-772**
- C-14 chronology and snow-patch development in the Lac à l'Eau Claire area, northern Québec. Mathieu, C., et al. [1987, p.97-108, fre] **44-898**
- Environmental processes and vegetation patterns in boreal forests. Bonan, G.B., [1989, 297p., eng] **44-966**
- Wetland vegetation near Old Crow, northern Yukon. Ovenden, L., et al. [1989, p.954-960, eng] **44-1025**
- Vascular plant communities of a Canadian polar oasis. Muc, M., et al. [1989, p.1126-1136, eng] **44-1026**
- Ecological relationships of arctic-alpine vegetation in Brooks Range, AK. Cooper, D.J., [1989, p.279-295, eng] **44-1092**
- Factors affecting moss and lichen distribution in Canadian forest tundra. Robinson, A.L., et al. [1989, p.25-48, eng] **44-1202**
- Wetland soils and vegetation, arctic foothills, Alaska. Walker, M.D., et al. [1989, 89p., eng] **44-1600**
- Postglacial vegetation of Canada. Ritchie, J.C., [1987, 178p., eng] **44-1831**
- Changes in climate and vegetation during the Shklov interglacial. Elovicheva, I.A.K., [1989, p.66-70, rus] **44-1914**
- Soil nitrogen changes during primary succession on a floodplain in Alaska, U.S.A. Walker, L.R., [1989, p.341-349, eng] **44-2007**
- Alaska interim land cover mapping program - final report. Fitzpatrick-Lins, K., et al. [1989, 10p., eng] **44-2951**
- Geobotanical regionalization of the non-chernozem zone of the European RSFSR. Aleksandrova, V.D., et al. [1989, 64p., rus] **44-3577**
- Geology, soils and vegetation of gas condensate fields in Tyumen'. Masalkin, S.D., et al. [1989, 49p., rus] **44-3989**
- Plant and soil groups in the alpine grasslands of the Vanoise Massif, French Alps. Gensac, P., [1990, p.195-201, eng] **44-4051**
- Ecosystems development in a coastal lowland of the Canadian High Arctic. Bliss, L.C., et al. [1990, p.165-174, eng] **44-4113**
- New method for defining biogeographical zones in the Arctic. Elvebakk, A., [1990, p.175-186, eng] **44-4114**
- Adaptations in arctic plants. Wielgolaski, F.E., [1990, p.244-245, eng] **44-4117**
- Vegetation of the Storöen glacier foreland, Norway. Whittaker, R.J., [1989, p.413-433, eng] **44-4460**
- Relation of vegetation pattern to snow cover on an antarctic hill. Kappen, L., et al. [1990, p.209-220, eng] **44-4491**
- Vehicle wheels**
- Performance of an omni-directional wheel on snow and ice. Blaisdell, G.S., [1989, 21p. + appendix, eng] **44-3745**

- Wheeled versus tracked vehicle snow mobility test program. Green, C.E., et al. [1989, 19p., eng] **44-3759**
- Vehicles**
- Avalanche-hazard index. Schaerer, P., [1989, p.241-247, eng] **44-582**
- Improving low temperature startability of M113 vehicles. Stupich, T.F., et al. [1988, 226p., eng] **44-711**
- Iowa Department of Transportation weigh-in-motion. McCall, B., [1989, p.286-295, eng] **44-1664**
- Electric vehicle design considerations for cold weather operations. Adams, W.A., et al. [1989, 4p., eng] **44-2852**
- Effect of volatility changes on vehicle cold-start driveability. Abramo, L., et al. [1989, 20p., eng] **44-2858**
- Wheeled versus tracked vehicle snow mobility test program. Green, C.E., et al. [1989, 19p., eng] **44-3759**
- Thawing soil strength measurements for predicting vehicle performance. Shoop, S.A., [1989, 18p., eng] **44-3933**
- See *also*: Air cushion vehicles; Aircraft; Airplanes; All terrain vehicles; Amphibious vehicles; Helicopters; Hydrofoil craft; Iceboats; Motor vehicles; Railroad cars; Ships; Sleds; Snow vehicles; Spacecraft; Submarines; Tank cars; Tank trucks; Tanker aircraft; Tanker ships; Tanks (combat vehicles); Tracked vehicles; Tractors
- Vein ice**
- See *also*: Ice veins
- Velocity**
- Surface velocity variations of the lower part of Columbia Glacier. Rasmussen, L.A., [1989, 52p., eng] **44-1796**
- Measurements of falling attitudes of snowflakes using two video cameras. Muramoto, K., et al. [1990, p.95-99, eng] **44-3549**
- Ice jams on rivers. Kostelianski, B.A., [1990, p.18-20, rus] **44-4479**
- See *also*: Seismic velocity; Wind velocity
- Velocity measurement**
- General equation for the terminal fall speed of solid hydrometeors. Böhm, H.P., [1989, p.2419-2427, eng] **44-1227**
- Synoptic ice motion from satellite-derived imagery. Collins, M.J., [1989, p.79-85, eng] **44-1529**
- Ice drift and momentum exchange in winter antarctic pack ice. Martinson, D.G., et al. [1990, p.1741-1755, eng] **44-2360**
- Instrumental simultaneous determination of ship speed and ice cover characteristics. Tarashevich, V.N., et al. [1989, p.100-108, rus] **44-2829**
- Observation of the falling motion of early snowflakes. Part II. On the variation of falling velocity. Kaiikawa, M., [1989, p.731-738, eng] **44-3305**
- Determination of a Z-R relationship for snowfall using a radar and high sensitivity snow gauges. Fujiyoshi, Y., et al. [1990, p.147-152, eng] **44-3418**
- Shallow sea water formation in the Arctic Ocean. Kulakov, M.I.U., et al. [1990, p.89-90, eng] **44-4072**
- Venezuela**
- Andes
- Movement of debris on a high Andean talus. Pérez, F.L., [1988, p.77-99, eng] **44-692**
- Ventilation**
- Reference guide for building diagnostics equipment and techniques. McKenna, C.M., et al. [1989, 64p., eng] **44-777**
- Application of AGF to the construction of the ventilation drifts at Selby Wistow Mine. Auld, F.A., [1989, p.513-524, eng] **44-928**
- Air change measurements of five Army buildings in Alaska. Flanders, S.N., [1990, p.53-63, eng] **44-2944**
- Vertical sections**
- See *also*: Profiles
- Vessels**
- See *also*: Ships
- Viability**
- See *also*: Cold tolerance; Cold weather survival; Survival
- Vibration**
- Mechanisms of change in clayey soils during vibration. Kuterin, V.N., [1989, 141p., rus] **44-1035**
- Investigation into the post-stable behavior of a tube array in cross-flow. Lever, J.H., et al. [1989, p.457-465, eng] **44-1536**
- Analysis of structural response to dynamic ice action. Kärnä, T., et al. [1990, p.135-142, eng] **44-2216**
- Dynamic response of narrow structures to ice crushing. Kärnä, T., et al. [1989, p.173-187, eng] **44-3100**
- Influence of vibration on the kinetic friction between plastics and ice. Lehtovaara, A., [1987, p.131-138, eng] **44-3196**
- Viscoelasticity**
- Effective approximate algorithm to predict the delayed elastic strain. Santaja, K., [1988, p.31-43, eng] **44-1127**
- Finite element calculations of ice pressure on rigid structures. Derradij-Aouat, A., et al. [1990, p.75-81, eng] **44-2209**

- Creep and relaxation behavior of floating ice structures. Kenny, J., et al. [1990, p.183-193, eng] **44-2223**
- Specific energy for the destruction of 10Kh2GM steels at low temperatures. Guliaev, V.P., et al. [1990, p.78-81, rus] **44-4354**
- Viscosity**
- Contribution of viscous forces to avalanche dynamics. Nishimura, K., et al. [1989, p.202-206, eng] **44-574**
- Switch to multi-vis. [1988, p.70-71, eng] **44-753**
- Laboratory engine test study of motor oil flow properties in winter service. Johnson, R.S., [1984, p.681-693, eng] **44-1188**
- Low temperature pumpability of engine oils. Stambaugh, R.L., [1984, p.694-6101, eng] **44-1189**
- Wax and low temperature engine oil pumpability. Rossi, A., [1985, p.768-776, eng] **44-1190**
- Compositional effects on the low temperature pumpability of engine oils. Alpine, G.A.M., et al. [1987, p.779-787, eng] **44-1193**
- Factors affecting the low temperature pumpability of used engine oils. May, C.J., et al. [1987, p.7298-7306, eng] **44-1194**
- Influence of heavy fractions on low-temperature properties of diesel fuels. Tumanian, B.P., et al. [1989, p.39-41, eng] **44-1680**
- Low temperature pumpability studies in a heavy duty diesel engine. Pt. 2. Machleder, W.H., et al. [1989, 16p., eng] **44-2851**
- Low-temperature pumpability of U.S. Army diesel engine oils. Game, F.A., et al. [1989, 18p., eng] **44-2857**
- Effect of polyester thickeners on low-temperature properties of phosphate fluids. Barabanova, G.V., et al. [1990, p.352-354, eng] **44-3203**
- Production of low pour-point diesel fuels and high-purity paraffins from gas condensate. Babaei, I.D., et al. [1990, p.231-232, eng] **44-3204**
- Low-viscosity marine fuel with improved low-temperature properties. Kondrasheva, N.K., [1990, p.422-424, eng] **44-3970**
- Enhanced diesel fuel low temperature operability - additive developments. Brown, G.I., et al. [1990, p.196-204, eng] **44-3986**
- Refinery-additive technologies and low temperature pumpability. Rossi, A., [1988, p.3970-3980, eng] **44-4246**
- Effect of ordered discreteness on the temperature dependence of strength characteristics of GTSK metals. Borisenko, V.A., et al. [1990, p.43-47, rus] **44-4347**
- Defect resistance of steels at low temperatures. Zienko, G.P., et al. [1990, p.106-110, rus] **44-4360**
- Crack resistance of pipe welds. Mindlin, V.G., et al. [1990, p.146-150, rus] **44-4369**
- Effect of phase conversion on viscosity of steels. Shternin, S.L., et al. [1990, p.243-247, rus] **44-4391**
- Stress-strain state in cylindrical pipes at low temperatures. Uzevich, V.N., [1990, p.253-257, rus] **44-4393**
- Crack resistance of steels using physical parameters of viscosity. Il'rovskikh, V.V., et al. [1990, p.257-261, rus] **44-4394**
- Viscous flow**
- C-band SAR observations of marginal ice zone rheology in the Labrador Sea. Drinkwater, M.R., et al. [1989, p.522-534, eng] **44-406**
- Flow of granular materials. Savage, S.B., [1989, p.241-266, eng] **44-1090**
- Dendritic growth of an elliptical paraboloid with forced convection in the melt. Ananth, R., et al. [1989, p.575-593, eng] **44-1872**
- Effect of stress concentration on local limit of viscosity. Novopashin, M.D., et al. [1990, p.172-176, rus] **44-4375**
- Visibility**
- Development and certification of a visibility-range monitor by image processing. Ishimoto, K., et al. [1989, p.117-119, eng] **44-558**
- Motion detection systems under winter conditions. Peck, L., [1989, 8p., eng] **44-608**
- Visual range monitor used for blowing snow. Fukuzawa, Y., et al. [1985, p.516-521, jpn] **44-2341**
- Effect of snow break forest to improve visibility in blowing snow. Ishimoto, K., et al. [1985, p.527-532, jpn] **44-2342**
- See *also*: Transparency; Turbidity
- Volcanic ash**
- Stratification of glaciers in Kamchatka. Valkaniac, R.A., et al. [1989, p.144-148, rus] **44-351**
- Volcanic ash layers in blue ice fields. Koebert, C., [1988, p.93-94, eng] **44-1746**
- Volcanic ash soils in Alaska. Ping, C.L., et al. [1989, p.8-28, eng] **44-2138**
- Concentrations of atmospheric constituents observed at Alert, Canada. Chung, Y.S., [1989, p.317-330, eng] **44-2183**
- Frost heave prevention in volcanic ash soil by quicklime. Ishida, H., [1989, p.15-20, jpn] **44-3441**
- Volcanic record (1869-1984) and climate in a Greenland ice core. Lyons, W.B., et al. [1990, p.176-182, eng] **44-4188**
- Identification of global volcanic horizons in ice ash. Palais, J.M., et al. [1990, p.216-220, eng] **44-4197**

Volcanoes

- Hydrology of ice caps in volcanic regions. Björnsson, H., 1988, 139p., eng 44-1319
Snowmelt caused by pyroclastic surge at Mount St. Helens volcano, 1980. Waitt, R.B., 1989, p.138-157, eng 44-2350

Volume

- Satellite sensor estimates of northern hemisphere snow volume. Chang, A.T.C., et al., 1990, p.167-171, eng 44-3352
Global snow variations derived from SMMR: preliminary results. Chang, A.T.C., et al., 1990, p.213-217, eng 44-3853

See *also*: Ice volume

Wadden Sea

- Morphodynamics of the Wadden Sea. Ehlers, J., 1988, 397p., eng 44-371

Walls

- Moisture accumulation in insulated walls in cold regions. McFadden, T., 1989, p.73-83, eng 44-214
Recent applications of soil freezing techniques in Spanish construction works. Rojo, J.L., et al., 1989, p.525-532, eng 44-929
Analytical simulation of the composite ice wall. Corder, P.R., et al., 1989, p.174-180, eng 44-1197
Hygrothermal influence of air convection in wall structures. Ojanen, T., et al., 1989, p.234-249, eng 44-1357
Moisture and heat transfer in walls in cold regions. Burch, D.M., et al., 1989, p.513-531, eng 44-1359
Moisture transfer through walls. Forest, T.W., 1989, p.532-542, eng 44-1360
Load test of a composite ice-resisting wall. Hassinen, P., et al., 1989, 59p., eng 44-1597
Thermal and durability considerations for composite steel-concrete sandwich structures. Gerwick, B.C., Jr., et al., 1988, p.73-83, eng 44-1738
Wall coatings for concrete and masonry buildings. Korhonen, C.J., et al., 1989, 27 refs., eng 44-1878
Effect of reagents and container walls on the phase equilibrium of freezing solutions. Strigotskii, S.V., 1989, p.29-35, rus 44-2148
Durability of external wall coatings in cold region. Inoue, S., et al., 1988, p.67-74, jpn 44-2667
Frost wall shielding for inertial confinement fusion. Neely, H.H., et al., 1990, 100p., eng 44-3771
Methods to reduce ice accumulation on miter gate recess walls. Rand, J.H., et al., 1989, 5p., eng 44-3793
Analysis of the composite ice wall. Corder, P.R., et al., 1990, p.21-39, eng 44-3798

Warning systems

- Test of remote sensing chemical agent alarm. Potuznik, W.J., et al., 1989, 31p. + append., eng 44-476
Motion detection systems under winter conditions. Peck, L., 1989, 8p., eng 44-608
By the numbers on snow or ice. Spence, C., 1988, p.18-20, eng 44-758
Road ice early warning system. Balgovan, R.M., 1988, 48p., eng 44-958
Bibliography on ice and fog: detection and warning systems. 1988, 47p., eng 44-1082
Ice warning systems cut the cost of winter maintenance. Halverson, D., 1986, p.8-9, eng 44-2061
Road traffic information system in winter on the route 230. Miyamoto, I., et al., 1988, p.646-652, jpn 44-2738
IMD ice tank personnel safety alarm system. Hackett, P., 1989, 18p. + append., eng 44-3195

See *also*: Monitors

Waste disposal

- Trace metal pollution from waste disposal site in Pangnirtung. Haertling, J.W., 1989, p.57-61, eng 44-491
Contingency plans for oil spills in the Great Lakes. Gundlach, E.R., et al., 1986, 273p., eng 44-838
Arctic oil spill response guide for the Alaskan Beaufort Sea. Final report. 1988, 334p., eng 44-844
Waste management practices of the United States Antarctic Program. Reed, S.C., et al., 1989, 28p., eng 44-2105
Protection of groundwater from drilling waste. 1989, 93p., eng 44-2113
Fate and transport of contaminants in frozen soils. Ayorinde, O.A., et al., 1990, p.202-211, eng 44-2984
Developing of low-waste technology for well drilling in the Far North. Rubanova, N.A., et al., 1989, p.114-118, rus 44-4521
Underground disposal of waste from gas-production facilities. Andrievskii, V.S., et al., 1989, p.143-151, rus 44-4527
Burial of industrial wastes from gas production. Sevastianov, O.M., 1989, p.152-160, rus 44-4528

See *also*: Sewage disposal

Waste treatment

- Freeze crystallization as a hazardous waste treatment technology. Barron, T.S., et al., 1988, 13p., eng 44-205
Geothermal energy applications in wastewater treatment. Vigrass, L.W., et al., 1989, p.55-72, eng 44-213

Experimental methods for decontaminating soils by freezing. Ayorinde, O.A., et al., 1988, 12p., eng 44-270

- Contaminant transport in freezing soils. Ayorinde, O.A., et al., 1988, 29p., eng 44-271
Freezing technique for *in-situ* treatment of contaminated soils. Ayorinde, O.A., et al., 1989, p.489-498, eng 44-272

- Low temperature bacterial treatment of wastewater. Halmo, G., 1987, 36p., eng 44-801
Freeze crystallization for concentration of liquid wastes. Barron, T.S., 1986, p.478-486, eng 44-945
Freeze-thaw processes for conditioning wastewater and water treatment sludges. Trahern, P.G., 1989, 250p., eng 44-972

- Development and design of sludge freezing beds. Martel, C.J., 1989, p.799-808, eng 44-1759
Waste management practices of the United States Antarctic Program. Reed, S.C., et al., 1989, 28p., eng 44-2105

- Low-temperature effects on systems for composting explosives-contaminated soils. Ayorinde, O.A., et al., 1989, 18p., eng 44-2847
Artificial ground freezing for treatment of toxic wastes. Sullivan, J.M., Jr., et al., 1990, p.36-44, eng 44-2964
Effect of freeze-thaw cycles on soils. Chamberlain, E., et al., 1990, p.145-155, eng 44-2977

- Chemical precipitation in stabilization ponds in cold climates. Odgaard, H., et al., 1987, p.71-77, eng 44-3311
Sludge dewatering by natural freeze-thaw. Martel, C.J., 1990, p.116-122, eng 44-3750

- Underground disposal of waste from gas-production facilities. Andrievskii, V.S., et al., 1989, p.143-151, rus 44-4527
Burial of industrial wastes from gas production. Sevastianov, O.M., 1989, p.152-160, rus 44-4528

See *also*: Sewage treatment

Wastes

- Wastewater purification using freezing technology. Selcukoglu, Y., et al., 1987, 54p., eng 44-904
See *also*: Radioactive wastes

Water

- Isotopic studies of natural water and ice in Western Siberia. Kritsuk, L.N., et al., 1989, p.76-94, rus 44-1257
Depression of freezing temperature of water and water solutions in porous materials. Schneider, P., et al., 1989, p.2644-2647, eng 44-2349
Complex permittivity of water as a function of frequency and temperature. Kaatz, U., 1989, p.371-374, eng 44-3341

- Fundamental equation for water from the melting line to 1273 K. Saul, A., et al., 1989, p.1537-1564, eng 44-3698

See *also*: Anomalous water; Artesian water; Distilled water; Ground water; Heavy water; Hygroscopic water; Lake water; Meltwater; Salt water; Sea water; Soil water; Subpermafrost ground water; Suprapermafrost ground water; Surface waters; Unfrozen water content

Water air interactions

See *also*: Water interactions

Water balance

- Hydrology of Mackenzie Delta lakes. Marsh, P., 1989, p.43-55, eng 44-140
Water balance formation in intensive water transfer zones. Vsevolozhskii, V.A., et al., 1989, p.13-23, rus 44-144
Water regime of sandy grounds in a seasonally thawing layer. Boltsov, A.V., et al., 1989, p.27-38, rus 44-146

- Relationship between ground and river waters of the Ural naded belt. Oberman, N.G., 1989, p.64-73, rus 44-150

- Analysis of the water balance and water resources in the mountainous Heihe River basin. Yang, Z.N., 1989, p.53-59, eng 44-172
Pro-glacial lake in the French Alps. Vallon, M., 1989, p.273-278, eng 44-589

- Liquid runoff from the Tuyuksu basin in Zailiyskiy Alatau for 1964-1984. Makarevich, K.G., 1989, p.68-79, rus 44-1389
Water balance of the Tekes River basin. Sosodov, I.S., et al., 1989, p.151-167, rus 44-1396
External water exchange in lakes of the USSR. Sorokin, I.N., 1988, 144p., rus 44-1500

- Properties of surface runoff in the High Arctic. Cogley, J.G., 1975, 358p., eng 44-1793
Replenishment of soil moisture reserves of agricultural fields. Shutov, V.A., et al., 1989, p.64-71, eng 44-1837

- Effect of weather variability on the energy balance of a lake in the Hudson Bay lowlands, Canada. Bello, R., et al., 1990, p.98-107, eng 44-2665
Surface runoff of mountain reservoirs in permafrost zones. Boiarintsev, E.L., et al., 1989, p.71-82, rus 44-2930
Accumulation of water in the ice cover of the Krasnoyarsk reservoir. Kosmakov, I.V., et al., 1989, p.69-80, rus 44-2935

- Soil thaw as influenced by small grain residue cover. Sharratt, B.S., et al., 1990, p.290-294, eng 44-2997
Permafrost and lakes in the Mackenzie Delta. Marsh, P., 1990, p.131-136, eng 44-3654

Simulation of runoff and nitrate transport from mixed basins in Sweden. Brandt, M., 1990, p.13-34, eng 44-3982

Water cement ratio

- Effects of withholding mixing water and retempering on concrete properties. Anderson, S.M., et al., 1988, 129p., eng 44-1057
Thermal and dynamic response of concrete at low temperature. Marshall, A.L., et al., 1988, p.519-526, eng 44-1169

- Control of cold weather concreting by water cement ratio. Koh, Y., 1985, p.255-262, eng 44-1989
Pore structure of concrete and freezing vulnerability. Philleo, R.E., et al., 1989, 18p., eng 44-2815

Water chemistry

- Chemical quality of water and the hydrologic cycle. Averett, R.C., ed., 1987, 382p., eng 44-76
Hydrologic and chemical flux in Loch Vale watershed, Rocky Mountain National Park. Baron, J., et al., 1987, p.141-155, eng 44-79

- Over-winter chemistry of subarctic fens, eastern Canada. Kingsbury, C.M., et al., 1989, p.97-108, eng 44-115
Naleds of the Yamal and Gydan peninsulas. Kritsuk, L.N., 1989, p.86-92, rus 44-153
Geochemistry of atmospheric precipitation and chemical runoff formation. Makarov, V.N., 1989, p.139-149, rus 44-160

- Winter water quality in lakes and streams. Calkins, D.J., et al., 1988, 8p., eng 44-227
Trace metals in meltwater from the Rhône glacier. Lum-Shue-Chan, K., 1981, p.286-295, eng 44-418
Particulate and dissolved matter in snowmelt runoff. Puigdefabregas, J., et al., 1986, p.69-80, eng 44-485

- Chemical characteristics of natural water. Hem, J.D., 1989, 264p., eng 44-798
Alkalinity of streamwater during snowmelt. Molot, L.A., et al., 1989, p.1658-1666, eng 44-997
National water summary 1984. 1985, 467p., eng 44-1007

- Carbonate deposits and sea ice advance, Ross Sea. Lawrence, M.J.F., et al., 1989, p.267-278, eng 44-1110
Hydrochemistry of alpine-subalpine streams, Colorado Rocky Mountains. Stednick, J.D., 1989, p.276-282, eng 44-1266

- Beaufort Sea: chemical oceanography. Thomas, D.J., et al., 1982, 243p., eng 44-1437
External water exchange in lakes of the USSR. Sorokin, I.N., 1988, 144p., rus 44-1500
Why does ice grow faster from salt water than from fresh water. Barduhn, A.J., et al., 1987, p.99-106, eng 44-1786

- Complex formation in ice-like structures on interaction with ions. Pinchuk, V.M., et al., 1987, p.1407-1410, rus 44-2424
Chemical dynamics of snowmelt runoff. Suzuki, K., et al., 1986, p.336-339, jpn 44-2477

- Ion-pairing RP-HPLC method for determining tetrazene in water and soil. Walsh, M.E., et al., 1989, p.159-179, eng 44-2832
Water chemistry of glacial lakes in Spitsbergen. Stankowska, A., 1989, p.429-442, eng 44-3061

- Water chemistry of glacial river in Spitsbergen. Stankowska, A., 1989, p.465-473, eng 44-3064
Oxygen demand in ice covered lakes as it pertains to winter aeration. Ellis, C.R., et al., 1989, p.1169-1176, eng 44-3113
Geochemistry of glaciers of Ak-Shyryk. Makarov, V.N., et al., 1989, p.130-143, rus 44-3241

- Chemical precipitation in stabilization ponds in cold climates. Odgaard, H., et al., 1987, p.71-77, eng 44-3311
Water sampling stations in AK as of Sep. 1988. Still, P.J., et al., 1989, 189p., eng 44-3737

- Solvent extraction for solute preconcentration from water. Leggett, D.C., et al., 1990, p.1355-1356, eng 44-3922
Water chemistry of the ultra-oligotrophic lake of New-Quebec Crater. Ouellet, M., et al., 1989, p.184-195, fre 44-4011

- Karst denudation in Norway. Lauritzen, S.E., 1990, p.157-167, eng 44-4418
Water content
Liquid water content adjustment based on icing cloud horizontal extent. Riley, J.T., et al., 1988, 117p., eng 44-534

- Features of the firm of South Cascade Glacier, WA. Fountain, A.G., 1989, p.69-74, eng 44-551
Thermal and dynamic response of concrete at low temperature. Marshall, A.L., et al., 1988, p.519-526, eng 44-1169
Interconnection of wetting and drying with freeze-thaw: some new data. Hall, K., 1988, p.1-11, eng 44-1222

- Infiltration into a frozen heavy clay soil. Thunholm, B., et al., 1989, p.153-166, eng 44-1322
Soil water content during freezing and thawing conditions. Nieber, J.L., et al., 1989, p.45-62, eng 44-1642
In situ permeability measurements. Moulton, L.K., 1989, p.63-73, eng 44-1643

- Temperature and thaw depth monitoring of pavement structures. Esch, D.C., 1989, p.78-86, eng 44-1645

Water content (cont.)

- Data acquisition: first the FERF then the world. Knuth, K.V., [1989, p.136-138, eng] **44-1651**
- Resilient modulus determination for frost conditions. Chamberlain, E.J., et al. [1989, p.320-333, eng] **44-1668**
- Winter frost at Viking Lander 2 site. Svitek, T., et al. [1990, p.1495-1510, eng] **44-2295**
- Seasonal active layer in the basin of Huola River, China. Wang, J.C., et al. [1989, p.203-214, chi] **44-2415**
- Liquid water content and droplet size calibration of the NASA Lewis Ice Research Tunnel. Ide, R.F., [1989, 28p., eng] **44-2812**
- Effects of freezing on aggregate stability of soils. Lehrs, G.A., et al. [1990, p.61-69, eng] **44-2967**
- Infiltration into a seasonally frozen clay soil. Thunholm, B., et al. [1990, p.156-160, eng] **44-2978**
- Nonlinear problems in the study of water movement in frozen soils. Nakano, Y., [1989, p.383-393, eng] **44-3766**

See *also*: Snow water content; Unfrozen water content

Water erosion

- Erosion of bedrock by subglacial meltwater. Cantley, Quebec. Sharpe, D.R., et al. [1989, p.1011-1020, eng] **44-434**
- Research models for soil conservation. Herndon, L.P., [1990, p.216-219, eng] **44-2986**
- Hydraulic erosion resistance of thawing soil. Van Klaveren, R.W., et al. [1987, 29p., eng] **44-3931**
- Karst denudation in Norway. Lauritzen, S.E., [1990, p.157-167, eng] **44-4418**

Water films

- Acoustic measurements on soaked soils during thaw and unfrozen water content determination. Deschêres, M.H., et al. [1989, p.551-553, eng] **44-932**
- Geochemistry of subglacial calcites: implications for the hydrology of the basal water film. Sharp, M., et al. [1990, p.141-152, eng] **44-4047**

Water flow

- Long waves in channels with an ice cover. Debol'skaya, E.I., [1989, p.425-432, eng] **44-285**
- Features of the firm of South Cascade Glacier, WA. Fountain, A.G., [1989, p.69-74, eng] **44-551**
- Spatial variability of snow-pack outflow at a site in Sierra Nevada, U.S.A. Kattelmann, R., [1989, p.124-128, eng] **44-560**
- Advance of Hubbard Glacier and 1986 outburst of Russell Fiord, Alaska, U.S.A. Mayo, L.R., [1989, p.189-194, eng] **44-572**
- Freezing heat transfer in pipes with 180 degree bends. Fukusako, S., et al. [1988, p.87-103, eng] **44-689**
- Boundary layer under fast ice, Hudson Bay, Canada. Shirasawa, K., et al. [1988, p.213-221, jpn] **44-741**
- Englaciation and subglacial hydrology: a qualitative review. Hooke, R.L., [1989, p.221-233, eng] **44-1263**
- Ice-band structure effects on freezing of flowing water in a pipe. Hirata, T., [1987, p.9-16, eng] **44-1338**
- External water exchange in lakes of the USSR. Sorokin, I.N., [1988, 144p., rus] **44-1500**
- Saint Mary's River-Little Rapids cut ice boom. [1980, n.p., eng] **44-1633**
- Water flow into reservoirs of large hydroelectric plants. Dement'ev, N.F., et al. [1988, p.58-63, eng] **44-1836**
- Ice cover effect on the hydraulics of impoundment reservoirs. Majewski, W., [1987, 132p., pol] **44-1940**
- Stream development in Glacier Bay National Park, Alaska, U.S.A. Sidle, R.C., et al. [1989, p.350-363, eng] **44-2008**
- Studies on the dynamics of the two-phase flow composed of snow and water. Kuriyama, H., et al. [1985, p.452-457, jpn] **44-2338**
- Water intake flow in unsaturated freezing soils. Gao, W.Y., et al. [1989, p.137-147, chi] **44-2408**
- Snow removal gutters using sea water. Sawada, K., et al. [1987, p.393-398, jpn] **44-2552**
- Discharge and sediment-load characteristics of the Hilda rock-glacier stream, Canadian Rocky Mountains, Alberta. Bajewsky, I., et al. [1989, p.295-306, eng] **44-2635**
- Frozen soil impacts, research needs. Papendick, R.I., et al. [1990, p.220-223, eng] **44-2987**
- Soil structure and frost depth as affected by soil compaction. Voorhees, W.B., et al. [1990, p.295-303, eng] **44-2998**
- Analysis of ice formation with flow reversal for application to a water source heat pump. Aceves-Saborio, S.M., et al. [1989, p.366-374, eng] **44-3030**
- Subglacial water pressures and the shape of subglacial conduits. Hooke, R.L., et al. [1990, p.67-71, eng] **44-3723**
- Glacier drainage system detected by dye-tracing experiments. Willis, I.C., et al. [1990, p.89-101, eng] **44-3727**
- Jökulhlaup involving a potholed glacier in AK. Sturm, M., et al. [1990, p.125-126, eng] **44-3731**
- Hydraulic model of overland flow on grass covered slopes. Adrian, D.D., et al. [1989, p.569-578, eng] **44-3744**
- Attempt to measure deep saline outflow through Barrow Canyon. Roach, A.T., et al. [1990, p.287-290, eng] **44-3866**
- Recharge-discharge function of wetlands Pt.1. Siegel, D.I., [1988, p.427-434, eng] **44-3877**

Sub-ice springmelt water circulation in a small lake.

- Roberge, J., et al. [1989, p.298-302, eng] **44-4031**
- Analysis of ice formation with flow reversal for application to a water source heat pump. Aceves-Saborio, S.M., et al. [1989, p.27-35, eng] **44-4256**

Water freezing

See *also*: Ice formation

Water ice interface

See *also*: Ice water interface

Water intakes

- Intake design for ice conditions. Ashton, G.D., [1988, p.107-138, eng] **44-308**
- Research on ice problems related to the operation of hydro power in Sweden. Billfalk, L., [1989, p.26-35, eng] **44-2020**
- Water intake flow in unsaturated freezing soils. Gao, W.Y., et al. [1989, p.137-147, chi] **44-2408**
- Ice forces acting on water intake towers. Hojo, K., et al. [1989, p.421-431, jpn] **44-2909**
- Development of an underwater frazil-ice detector. Daly, S.F., et al. [1990, p.77-82, eng] **44-3541**

Water jets

See *also*: Hydraulic jets

Water level

- Automated collection of water-quality and discharge data on streams. Sturges, D.L., et al. [1989, p.122-125, eng] **44-512**
- Understanding ice and its behavior in marinas. Wortley, C.A., [1985, 2p., eng] **44-1065**
- Arctic data compilation and appraisal. Vol.1. Beaufort Sea. Cornford, A.B., et al. [1982, 279p., eng] **44-1436**
- Arctic data compilation and appraisal. Vol.6. Queen Elizabeth Is. Fissel, D.B., et al. [1983, 214p., eng] **44-1457**
- Arctic data compilation and appraisal. Vol.7. Canadian Basin-Arctic Ocean. Birch, J.R., et al. [1984, 624p., eng] **44-1458**
- Arctic data compilation and appraisal. Vol.14. Northwest Passage. Birch, J.R., et al. [1987, 300p., eng] **44-1461**
- Saint Mary's River-Little Rapids cut ice boom. [1980, 63p., eng] **44-1633**
- Interaction between an ice field and a system of cylindrical piles. Matskevich, D.G., et al. [1988, p.170-174, eng] **44-1868**
- Proceedings. [1989, 245p., eng] **44-2017**
- Model studies on ice control structures in the Dunakiliti reservoir. Décsi, E., et al. [1989, p.36-45, eng] **44-2021**
- Some problems of the ice cover formation in the Wloclawek reservoir. Grzes, M., [1989, p.76-92, eng] **44-2025**
- Unsteady flow in open channels with ice cover. Majewski, W., et al. [1989, p.143-151, eng] **44-2031**
- Model study of a floating ice barrier. Molnar, I., [1989, p.189-198, eng] **44-2035**
- Thermal and ice regimes of reservoirs and basins of power plants. Shatalina, I.N., [1989, p.213-221, eng] **44-2037**
- Seasonal distribution of low flow events in New Hampshire streams with emphasis on the winter period. Mellor, R.A., [1990, p.47-53, eng] **44-3029**
- Glacier reaction to water level increase of glacial lake. Hooke, R.L., et al. [1989, p.113-126, eng] **44-3095**
- Hydrological regime of lakes in the Mackenzie Delta, Northwest Territories, Canada. Bigas, S.C., [1990, p.163-174, eng] **44-4049**
- Effects of climate changes on the Laurentian Great Lakes levels. Croley, T.E., II, et al. [1989, p.471-474, eng] **44-4250**
- Calculating ice jam water levels. Buzin, V.A., [1989, p.28-41, rus] **44-4401**
- Effect of runoff on the ice jam water level. Alekseenko, R.I.A., [1989, p.41-45, rus] **44-4402**
- Methods for forecasting maximum ice jam water levels on the Neva River. Donchenko, R.V., et al. [1989, p.74-81, rus] **44-4406**
- See *also*: Sea level; Water table
- Water pipelines**
- Water and sewer service connections in permafrost areas of the Northwest Territories. Wilson, C.E., et al. [1989, p.188-196, eng] **44-1027**
- Tapping a glacier. Morse, D., [1989, p.38-41, eng] **44-2524**
- Effect of convection on plug formation during cryogenic pipe freezing. Burton, M.J., et al. [1989, p.121-126, eng] **44-3700**
- Water pipes**
- Fracture of pipes due to freezing of water enclosed inside. Oiwake, S., et al. [1985, p.149-154, jpn] **44-1329**
- Study of freezing behavior in a pipe with water flow. Inaba, H., et al. [1987, p.141-149, jpn] **44-1348**
- Cold weather design of plumbing systems. Frankel, M., [1987, p.25-40, eng] **44-2587**
- Cold weather design of plumbing systems, Pt.2. Frankel, M., [1988, p.40-55, eng] **44-2588**
- Automatic valves for water pipes in cold regions. Nagashima, Y., [1988, p.93-98, jpn] **44-2668**
- On auto drain system for water-piping. Yumita, S., [1988, p.99-103, jpn] **44-2669**

Water pollution

- Trace metal pollution from waste disposal site in Pangnirtung. Haertling, J.W., [1989, p.57-61, eng] **44-491**
- Natural oil seeps in the Alaskan marine environment. Final report. Becker, P.R., et al. [1988, 173p., eng] **44-700**
- Contingency plans for oil spills in the Great Lakes. Gundlach, E.R., et al. [1986, 273p., eng] **44-838**
- National water summary 1984. [1985, 467p., eng] **44-1007**
- Well casings for monitoring trace organics in ground water. Parker, L.V., et al. [1989, 29p., eng] **44-1223**
- Statistical analysis of pH in rain and snow. Watanabe, N., et al. [1988, p.389-397, eng] **44-1299**
- Mathematical model of lake acidification. Goldstein, R.A., et al. [1985, p.1-8, eng] **44-1466**
- Leaching of metal pollutants from well casings. Hewitt, A.D., [1989, 11p., eng] **44-1482**
- Analytical methods for determining nitroguanidine in soil and water. Walsh, M.E., [1989, 27p., eng] **44-1785**
- Snow cover and maximum leachate discharge of a sanitary landfill. Ettala, M., [1986, p.187-202, eng] **44-1817**
- Oil in the sea: inputs, fates, and effects. [1985, 601p., eng] **44-1880**
- Aromatic hydrocarbons in the Alaskan marine environment. Anderson, J.W., et al. [1986, 123p., eng] **44-2108**
- Protection of groundwater from drilling waste. [1989, 93p., eng] **44-2113**
- Influence of deicing chemicals on sewage treatment. Kawamura, K., et al. [1989, p.330-335, jpn] **44-2897**
- Environmental transformation of nitroaromatics and nitramines. Walsh, M.E., [1990, 21p., eng] **44-3178**
- Overview of the Canadian Arctic Shipping Pollution Prevention Regulations. McCallum, J.S., [1990, p.U/1-U/8, eng] **44-3482**
- Surface changes in well casings exposed to organic pollutants. Taylor, S., et al. [1990, 14p., eng] **44-3755**
- Influence of well casings on well water. Hewitt, A.D., et al. [1989, 9p., eng] **44-3761**
- Influence of casing materials on trace-level chemicals in well water. Parker, L.V., et al. [1990, 11p., eng] **44-3774**
- Acute toxicity of petroleum hydrocarbons to the arctic littoral mysid *Mysis oculata* (fabricius). Riebell, P.N., et al. [1989, p.161-185, eng] **44-3800**
- Oil pollution problem in the Baltic marine environment. Hirvi, J.P., et al. [1989, p.307-327, eng] **44-3801**
- Oil spills in leads: tank tests and modelling. Buist, I.A., et al. [1987, 58p., + append., eng] **44-3963**
- Simulation of runoff and nitrate transport from mixed basins in Sweden. Brandt, M., [1990, p.13-34, eng] **44-3982**
- Oil pollution and stability of arctic marine ecosystems. Koronelli, T.V., et al. [1990, p.236-237, eng] **44-4095**
- Alternative strategies for oil spill combat in arctic waters. Sveum, P., [1990, p.237-250, eng] **44-4096**
- Water pressure**
- Theoretical and experimental analyses of glacial abrasion and quarrying. Iverson, N.R., [1989, 240p., eng] **44-975**
- Soil suction monitoring for roads and airfields. Fredlund, D.G., [1989, p.24-39, eng] **44-1640**
- Measurement of *in-situ* pore pressures. Sellers, J.B., [1989, p.40-44, eng] **44-1641**
- Mechanisms of bedrock frost heave in permafrost regions. Michaud, Y., et al. [1990, p.125-130, eng] **44-3653**
- Subglacial water pressures and the shape of subglacial conduits. Hooke, R.L., et al. [1990, p.67-71, eng] **44-3723**
- Effect of hydrostatic pressure and salinity on the stability of gas hydrates. Handa, Y.P., [1990, p.2652-2657, eng] **44-4137**
- Water purification**
- See *also*: Aeration; Water treatment
- Water reserves**
- Water regime of sandy grounds in a seasonally thawing layer. Boltsov, A.V., et al. [1989, p.27-38, rus] **44-146**
- Analysis of the water balance and water resources in the mountainous Heihe River basin. Yang, Z.N., [1989, p.53-59, eng] **44-172**
- Hydraulic engineering. [1989, 1212p., eng] **44-422**
- Hydrologic implications of global warming on CA water resources. Lettenmaier, D.P., [1989, p.643-646, eng] **44-424**
- Fiscal year 1986 program report: Alaska Water Research Center. Brown, E.J., [1987, 32p., eng] **44-1086**
- Water reserves in Kazakhstan glaciers and prospects for their use. Tokmagambetov, G.A., et al. [1989, p.5-17, rus] **44-1385**
- Effect of karst on water resources in the Severskiy Donets basin. Gopchenko, E.D., et al. [1988, p.82-89, rus] **44-2127**
- Land reclamation methods in Siberia. Maslov, B.S., [1989, p.40-44, rus] **44-2926**
- Snowmelt infiltration into completely frozen subsoiled soils. Gray, D.M., et al. [1990, p.161-170, eng] **44-2979**

- Arctic water resources and their studies. Ivanov, V.V., [1990, p.193-202, eng] **44-4089**
- Water retention**
- Advance of Hubbard Glacier and 1986 outburst of Russell Fiord, Alaska, U.S.A. Mayo, L.R., [1989, p.189-194, eng] **44-572**
- Water storage**
- Evaporation from reservoir equipped with snow fence. Sturges, D.L., [1989, p.9-20, eng] **44-499**
- Glacier outburst floods at Mount Rainier, Washington State, U.S.A. Driedger, C.L., et al, [1989, p.51-55, eng] **44-548**
- Features of the firm of South Cascade Glacier, WA. Fountain, A.G., [1989, p.69-74, eng] **44-551**
- Planned reservoir and flooding the tongue of a glacier. Funk, M., et al, [1989, p.76-81, eng] **44-552**
- Changes of glacial hydrology at Austre Okstindbreen, Norway, 1976-87. Theakstone, W.H., et al, [1989, p.252-256, eng] **44-584**
- Evaluation of Great Lakes hydraulic routing models. Hartmann, H.C., [1987, 15p., eng] **44-1290**
- See *also*: Ice (water storage); Snow retention; Snow water equivalent; Water retention
- Water structure**
- Structural study of deeply supercooled water. Bellissent-Funel, M.C., et al, [1989, p.7123-7129, eng] **44-766**
- Parameterization of phase change of water in a mesoscale model. Levkov, L., et al, [1987, 45p., eng] **44-889**
- Melting of ice in silica pores. Drost-Hansen, W., et al, [1989, p.1439-1441, eng] **44-1858**
- Bjerrum defects and proton conduction in a one-dimensional ice model. Sergienko, A.I., [1988, p.496-498, eng] **44-2057**
- Density-functional theory for the freezing of water. Ding, K., et al, [1987, p.1698-1701, eng] **44-2115**
- Structure of high-density amorphous water. II. Neutron scattering study. Bellissent-Funel, M.C., et al, [1987, p.2231-2235, eng] **44-2116**
- Calculation of the Auger spectrum of liquid water. Liegener, C.M., et al, [1988, p.2618-2623, eng] **44-2346**
- Water structure revealed by low-frequency Raman scattering. Rousset, J.L., et al, [1990, p.2150-2154, eng] **44-3026**
- Effect of temperature on hydrogen bond distribution in water. Fujita, Y., et al, [1989, p.184-188, eng] **44-3170**
- Computational study of formation dynamics and structure of amorphous ice condensates. Zhang, Q., et al, [1990, p.5004-5016, eng] **44-3275**
- New water potential including polarization. Cieplak, P., et al, [1990, p.6755-6760, eng] **44-3593**
- Lifetime of the bond network and gel-like anomalies in supercooled water. Sciortino, F., et al, [1990, p.1686-1689, eng] **44-3629**
- Liquid water—the story unfolds. Symons, M.C.R., [1989, p.491-494, eng] **44-3697**
- Raman spectroscopic study of bulk water supercooled to -33°C. Hare, D.E., et al, [1990, p.25-33, eng] **44-3966**
- Mechanism of H⁺, Li⁺, Na⁺, Be⁺ and Mg²⁺ ion diffusion in ice-like structures. Pinchuk, V.M., et al, [1988, p.2993-2996, rus] **44-4263**
- Water supply**
- Ground water runoff in the active water transfer zone in cryohydrogeological structures. Afanasenko, V.E., et al, [1989, p.3-13, rus] **44-143**
- Western Snow Conference, 57th, 1989. [1989, 150p., eng] **44-497**
- Hydrological model input accuracy in determination of water yield. Stednick, J.D., [1989, p.36-44, eng] **44-502**
- Reservoir operations guides—application on three reservoirs. Marron, J.K., et al, [1989, p.69-78, eng] **44-506**
- Direction toward improved streamflow forecasting in the Western mountains. Day, G.N., et al, [1989, p.79-89, eng] **44-507**
- Estimating the effects of wildfire on water supplies in the northern Rocky Mountains. Farnes, P.E., et al, [1989, p.90-99, eng] **44-508**
- Statistical forecast model for Libby Basin, Montana. Wortman, R.T., [1989, p.100-107, eng] **44-509**
- Hydrology of the Biafo Glacier, Karakoram range, Himalaya Mts. Hewitt, K., et al, [1989, p.103-108, eng] **44-556**
- Remote sensing and water resources. McKim, H.L., et al, [1987, p.186-190, eng] **44-611**
- National water summary 1983—hydrologic events and issues. [1984, 243p., eng] **44-1006**
- National water summary 1984. [1985, 467p., eng] **44-1007**
- Fiscal year 1986 program report: Alaska Water Research Center. Brown, E.J., [1987, 32p., eng] **44-1086**
- Using water from suprapermafrost taliks for water supply of oil deposits. Burchak, T.V., et al, [1989, p.36-47, rus] **44-1255**
- Waste management practices of the United States Antarctic Program. Reed, S.C., et al, [1989, 28p., eng] **44-2105**
- Controlled snow melting as water supply. Takahara, H., et al, [1985, p.440-445, jpn] **44-2337**
- Utilization of snow-melt water at coastal region. Fukami, H., et al, [1986, p.348-353, jpn] **44-2479**
- Ground water in permafrost zones. Grodzinski, V.D., [1989, p.92-103, rus] **44-3490**
- Investigation of the LIZ-3 Dew Line Station water supply lake. Kovacs, A., [1990, 10p., eng] **44-3752**
- Seasonal runoff forecast for Kangerluarsunnguag near Nuuk/Godthab, West Greenland. Braithwaite, R.J., [1990, 17p., eng] **44-3805**
- Activities of the Alaska District Water Resources Division, U.S. Geological Survey, 1990. Snyder, E.F., comp. [1990, 21p., eng] **44-3806**
- Satellite-supported methods for studying ice fields and underground water in the Eastern Pamirs. Topchiev, A.G., [1990, p.943-960, eng] **44-3965**
- See *also*: Alimentation
- Water table**
- Water intake flow in unsaturated freezing soils. Gao, W.Y., et al, [1989, p.137-147, chj] **44-2408**
- Consumption of atmospheric methane by tundra soils. Whalen, S.C., et al, [1990, p.160-162, eng] **44-4037**
- Water temperature**
- AMERIEZ 1986: oceanographic conditions in the northwestern Weddell Sea ice zone. Muench, R.D., et al, [1989, p.179-181, eng] **44-26**
- Ocean structure along 30W in the southern ocean. Naganobu, M., [1985, p.38-39, jpn] **44-57**
- Characteristics and origin of hypersaline meromictic Lake Garrow. Ouellet, M., et al, [1989, p.215-234, eng] **44-87**
- Temperature and salinity in the Northwest Passage, Vol.2. 1983. Buckingham, W.R., et al, [1987, 152p., eng] **44-200**
- Relation of water movement near shelf ice edge to air-sea variables. Chu, P.C., [1987, p.31-42, eng] **44-291**
- Automated collection of water-quality and discharge data on streams. Sturges, D.L., et al, [1989, p.122-125, eng] **44-512**
- Current, temperature, and depth measurements in Chukchi Sea. Hachmeister, L.E., et al, [1984, p.255-333, eng] **44-622**
- Arctic data compilation and appraisal. Vol.1. Beaufort Sea. Cornford, A.B., et al, [1982, 279p., eng] **44-1436**
- Arctic data compilation and appraisal. Vol.6. Queen Elizabeth Is. Fissel, D.B., et al, [1983, 214p., eng] **44-1457**
- Arctic data compilation and appraisal. Vol.7. Canadian Basin-Arctic Ocean. Birch, J.R., et al, [1984, 624p., eng] **44-1458**
- Arctic data compilation and appraisal. Vol.12. Beaufort Sea and Amundsen Gulf. Birch, J.R., et al, [1987, 459p., eng] **44-1460**
- Arctic data compilation and appraisal. Vol.14. Northwest Passage. Birch, J.R., et al, [1987, 300p., eng] **44-1461**
- NOGAP B.6: Vol.1: Beaufort Sea current measurements, March-August 1987. McCullough, D., et al, [1988, 19p., eng] **44-1475**
- Hydrophysical processes in the sea surface layer. Vasilenko, V.M., et al, [1987, p.63-66, rus] **44-1595**
- Simple ice-ocean model for the Greenland Sea. Wood, R.G., et al, [1989, p.1865-1880, eng] **44-1735**
- Water temperature and ice cover in the impounding reservoir. Baginska, M., et al, [1989, p.1-14, eng] **44-2018**
- Changes of the ice thermal regime in the river caused by heated water discharges. Dobrowolski, A., et al, [1989, p.55-65, eng] **44-2023**
- Influence of the evaporation assessment method on the heat exchange during winter period. Jurak, D., [1989, p.93-106, eng] **44-2026**
- Influence of some environmental factors on the evolution of river ice covers. Kolodko, J., [1989, p.116-121, eng] **44-2028**
- Modelling water temperature beneath river ice covers. Marsh, P., [1990, p.36-44, eng] **44-3000**
- Effect of the equatorial Pacific Ocean on interannual variability in the Okhotsk Sea ice. Tachibana, Y., et al, [1989, p.71-77, jpn] **44-3126**
- Effect of water transfer on temperature and ice regime. Tesaker, E., [1988, p.89-98, eng] **44-3318**
- Ice control by regulation of the fresh water discharge into sea water. Gjerp, S.A., et al, [1988, p.137-145, eng] **44-3320**
- Ice drift modelling for the Barents Sea. Carstens, T., et al, [1988, p.171-179, eng] **44-3321**
- River temperature downstream from a dam and effect on ice. Gosink, J.P., [1986, p.979-983, eng] **44-3410**
- Remote water-temperature measurement. Daly, S., [1989, 6p., eng] **44-3792**
- Large-scale physical oceanography of polar oceans. Carmack, E.C., [1990, p.171-222, eng] **44-3978**
- Mesoscale phenomena in the polar oceans. Muench, R.D., [1990, p.223-285, eng] **44-3979**
- Thermohaline structure, water circulation and deep water convection in the Greenland Sea stationary gyre. Alekseev, G.V., et al, [1990, p.87-88, eng] **44-4071**
- Calculating the water surface temperature of reservoirs. Vuglinskii, V.S., [1989, p.101-119, rus] **44-4410**
- Water transport**
- Multiphase flows in porous media. Morel-Seytoux, H.J., [1987, p.103-174, eng] **44-307**
- Loss of water from Phobos. Fanale, F.P., et al, [1989, p.287-290, eng] **44-387**
- Western Snow Conference, 57th, 1989. [1989, 150p., eng] **44-497**
- Water on Mars. Carr, M.H., [1987, p.374-375, eng] **44-1414**
- Early environment and its evolution on Mars: implications for life. McKay, C.P., et al, [1989, p.189-214, eng] **44-1768**
- Determination of the resistance of the underside of ice cover. Majewski, W., et al, [1989, p.152-167, eng] **44-2032**
- Sublimation and transport of water from the north residual polar cap on Mars. Haberle, R.M., et al, [1990, p.1423-1437, eng] **44-2290**
- Role of water ice clouds in the Martian hydrologic cycle. James, P.B., [1990, p.1439-1445, eng] **44-2291**
- Mars atmospheric D/H: consistent with polar volatile theory? Jakosky, B.M., [1990, p.1475-1480, eng] **44-2293**
- Winter frost at Viking Lander 2 site. Svitek, T., et al, [1990, p.1495-1510, eng] **44-2295**
- Simulating the freezing and thawing of arable land in Sweden. Lundin, L.C., [1990, p.87-98, eng] **44-2970**
- Effects of tillage and residue on frozen soils. Bidlake, W.R., et al, [1990, p.231-238, eng] **44-2989**
- Effect of water transfer on temperature and ice regime. Tesaker, E., [1988, p.89-98, eng] **44-3318**
- Unfrozen water as a function of void ratio in a clayey silt. Konrad, J.M., [1990, p.49-55, eng] **44-3539**
- Transport of water due to a temperature gradient in unsaturated frozen clay. Nakano, Y., et al, [1990, p.57-75, eng] **44-3540**
- Nonlinear problems in the study of water movement in frozen soils. Nakano, Y., [1989, p.383-393, eng] **44-3766**
- Water regime of asteroid (1) Ceres. Fanale, F.P., et al, [1989, p.97-110, eng] **44-3968**
- Water treatment**
- Geothermal energy applications in wastewater treatment. Vigrass, L.W., et al, [1989, p.55-72, eng] **44-213**
- Using desalination technologies for water treatment. [1988, 74p., eng] **44-890**
- Wastewater purification using freezing technology. Selcukoglu, Y., et al, [1987, 54p., eng] **44-904**
- Freeze-thaw processes for conditioning wastewater and water treatment sludges. Trahern, P.G., [1989, 250p., eng] **44-972**
- Vacuum freezing multiple phase transformation processes. Cheng, C.Y., et al, [1987, p.139-153, eng] **44-1788**
- Tapping a glacier. Morse, D., [1989, p.38-41, eng] **44-2524**
- Cold-climate nitrifying biofilters: design and operation considerations. Gullicks, H.A., et al, [1990, p.50-57, eng] **44-2833**
- Chemical precipitation in stabilization ponds in cold climates. Odgaard, H., et al, [1987, p.71-77, eng] **44-3311**
- Hydraulic model of overland flow on grass covered slopes. Adrian, D.D., et al, [1989, p.569-578, eng] **44-3744**
- New approach for sizing rapid infiltration systems (discussion and closure). Reed, S.C., et al, [1989, p.879-882, eng] **44-3746**
- Underground disposal of waste from gas-production facilities. Andrievskii, V.S., et al, [1989, p.143-151, rus] **44-4527**
- Burial of industrial wastes from gas production. Sevastianov, O.M., [1989, p.152-160, rus] **44-4528**
- See *also*: Aeration
- Water vapor**
- Stratospheric dehydration in winter-spring 1987. Kelly, K.K., et al, [1989, p.11317-11357, eng] **44-72**
- Water vapor transfer during freezing of peat moisture. Gamaunov, N.I., et al, [1989, p.19-25, rus] **44-1383**
- Inventory of water on Mars. Carr, M.H., [1988, p.71-80, eng] **44-1678**
- Effect of surface characteristics of metal oxides on heterogeneous nucleation. Gorbunov, B.Z., et al, [1989, p.225-230, rus] **44-2567**
- Remote sensing of atmospheric vapor fluxes. Uttal, T., et al, [1990, p.22-34, eng] **44-3289**
- Water waves**
- Upper ocean internal waves in the marginal ice zone of the Greenland Sea. Eckert, E.G., [1989, 77p., eng] **44-973**
- Arctic data compilation and appraisal. Vol.12. Beaufort Sea and Amundsen Gulf. Birch, J.R., et al, [1987, 459p., eng] **44-1460**
- Arctic data compilation and appraisal. Vol.14. Northwest Passage. Birch, J.R., et al, [1987, 300p., eng] **44-1461**
- Hydrophysical processes in the sea surface layer. Vasilenko, V.M., et al, [1987, p.63-66, rus] **44-1595**
- Wave-induced berg bit motion near a floating platform. Mak, I.M., et al, [1990, p.205-215, eng] **44-2225**
- Models of surface wave transformation in an ice-covered sea. Tkachenko, V.A., et al, [1988, p.41-46, rus] **44-2281**

Water waves (cont.)

- Report on measurement of riverbed waves during snowmelt runoff. Nakayama, H., et al. [1987, p.423-428, jpn] **44-3517**
- Wave-induced sediment enrichment in coastal ice covers. Shen, H.T., et al. [1990, p.100-102, eng] **44-3827**
- See *also*: Ocean waves

Waterproofing

- Intensive concrete technology. Solomatov, V.I., et al. [1989, 261p., rus] **44-1754**
- Use of penetrating sealers on concrete bridge decks. Carter, P.D., [1989, p.292-302, eng] **44-2516**

Watersheds

- Hydrologic and chemical flux in Loch Vale watershed, Rocky Mountain National Park. Baron, J., et al. [1987, p.141-155, eng] **44-79**
- Snow accumulation in an alpine watershed, Sierra Nevada, CA. Elder, K., et al. [1989, p.56-63, eng] **44-549**
- Evaporation from a discontinuous permafrost, Alaska. Ishikawa, N., et al. [1988, p.103-116, jpn] **44-735**
- HEC-1 flood hydrograph package. Users manual. [1987, 325p., eng] **44-1061**
- Snow cover and snowmelt runoff model in the forest zone. Motovilov, I.U.G., et al. [1989, p.17-26, eng] **44-1823**
- Conservation applications impacted by soil freeze thaw. Formanek, G.E., et al. [1990, p.108-112, eng] **44-2972**
- Comparison of three methods for measuring depth of soil freezing. Hanson, C.L., et al. [1990, p.257-262, eng] **44-2992**
- Comparison of runoff occurring on frozen and unfrozen soils. Molnau, M., et al. [1990, p.279-285, eng] **44-2995**
- Geologic influences on fluvial hydrology in some watersheds of New Mexico. Kelson, K.L., et al. [1989, p.671-690, eng] **44-3396**
- Influence of summertime precipitation events on meltwater production in the Karakoram, northern Pakistan. Wake, C.P., [1989, p.28-35, eng] **44-3996**
- Major ion chemistry of the pre-melt snowpack, Turkey Lake watershed, 1980-1988. Semkin, R.G., et al. [1989, p.277-281, eng] **44-4027**

Wave propagation

- Long waves in channels with an ice cover. Debol'skaya, E.I., [1989, p.425-432, eng] **44-285**
- Relation of water movement near shelf ice edge to air-sea variables. Chu, P.C., [1987, p.31-42, eng] **44-291**
- Airborne SAR observations of ocean surface waves penetrating floating ice. Ranzy, R.K., et al. [1989, p.492-500, eng] **44-403**
- Electromagnetic wave theory and applications. Kong, J.A., et al. [1989, p.181-186, eng] **44-788**
- Mechanical effect of an explosion in soil. Luchko, I.A., ed. [1989, 231p., rus] **44-1399**
- Evolution of wave packets in three-wave interaction in a heavy liquid under an ice cover. Marchenko, A.V., et al. [1988, p.872-879, eng] **44-1517**
- Propagation of long nonlinear waves in a ponderable fluid beneath an ice sheet. Il'ichev, A.T., et al. [1989, p.73-79, eng] **44-1519**
- Observation of the sound radiated by individual ice fracturing events. Stein, P.J., [1988, p.533-544, eng] **44-1708**
- In-situ* measurement of elastic properties of sea ice. Brooke, G.H., et al. [1989, p.113-118, eng] **44-1741**
- Acoustic wave propagation in horizontally stratified media. Schmidt, H., [1987, p.473-483, eng] **44-1742**
- Low frequency attenuation in the Arctic Ocean. DiNapoli, F.R., et al. [1986, p.387-395, eng] **44-1744**
- Propagator matrix for acoustic wave propagation through anisotropic porous media. Yamamoto, T., et al. [1986, p.463-472, eng] **44-1745**
- Standing waves of a floating plate on the surface of a liquid. Gladun, O.M., et al. [1989, p.357-367, eng] **44-1946**
- Modeling the upper profile under permafrost conditions. Tabulevich, V.N., ed. [1989, 128p., rus] **44-2074**
- Attenuation and reflection of radio waves by a melting layer of precipitation. Klaassen, W., [1990, p.39-44, eng] **44-2595**
- Measurement of acoustic pulses propagated through arctic internal waves. Ewart, T.E., et al. [1990, p.129-139, eng] **44-3286**
- Change in explosive waves with freezing of the ground. Liakhov, G.M., et al. [1989, p.352-357, eng] **44-3370**
- Theoretical estimates of light reflection and transmission by spatially inhomogeneous and temporally varying ice covers. Perovich, D.K., [1990, p.45-49, eng] **44-3816**
- Comparison of measurements of snowfall by radar using an S-band and an X-band transmitter. Giguere, A., [1989, p.82-98, eng] **44-4001**
- Optical effects in falling snow. Hutt, D.L., [1989, p.247-251, eng] **44-4022**
- Alternate use of two different emitters in radar observation of mixed precipitation. Giguere, A., [1989, p.252-256, fre] **44-4023**
- Review of microwave remote sensing of snow. Heacock, T., et al. [1989, p.287-290, eng] **44-4029**

- Dynamics of spatial and temporal variations of electromagnetic processes in the Arctic (wave phenomena). Troitskaia, V.A., [1990, p.40-43, eng] **44-4064**
- Wave processes under sea ice cover. Korobeinikov, V.P., et al. [1990, p.151-152, eng] **44-4083**
- Radar reflectivity of Titan. Muhleman, D.O., et al. [1990, p.975-980, eng] **44-4145**
- Explosive waves in snow. Liakhov, G.M., et al. [1990, p.493-499, eng] **44-4262**
- Sound waves at the water-sea ice interface. Weng, W., et al. [1990, p.2481-2488, eng] **44-4276**
- High frequency transmissions propagated in the marginal ice zone. Catipovic, J.A., et al. [1990, p.185-190, eng] **44-4280**
- Internal wave activity in the arctic marginal ice zone. Eckert, E.G., et al. [1990, p.9569-9574, eng] **44-4333**
- Explosive waves in snow. Liakhov, G.M., et al. [1990, p.493-499, eng] **44-4469**
- Internal waves under arctic pack ice: the coherence structure. Levine, M.D., [1990, p.7347-7357, eng] **44-4473**
- Waves**
See *also*: Detonation waves; Elastic waves; Microwaves; Ocean waves; Radio waves; Shock waves; Sound waves; Water waves
- Weather**
See *also*: Meteorology
- Weather control**
See *also*: Artificial precipitation; Climate control; Cloud dissipation; Cloud seeding; Fog dispersal; Hail prevention; Weather modification
- Weather forecasting**
Aircraft icing and improved aircraft icing forecasts. Pass, R.P., [1985, p.121-123, eng] **44-706**
- Forecasting polar lows. Kaneström, I., et al. [1988, p.337-341, eng] **44-951**
- Forecasting ice fogs. Kononenko, S.M., et al. [1989, p.121-127, rus] **44-1494**
- Lake-effect snowshowers. Horne, T.A., [1989, p.91, eng] **44-1818**
- Magic chart for forecasting snow amounts. Chaston, P.R., [1989, p.20-22, eng] **44-2089**
- Karluk ice island. Bugno, W., et al. [1990, p.9-17, eng] **44-2201**
- Example of very-short-term prediction experiments of snowfall in Sapporo City. Asuma, Y., et al. [1985, p.480-485, jpn] **44-2339**
- Influence of a snow field on the track of a low pressure center. Morris, T.R., [1989, p.14-18, eng] **44-2390**
- Weather forecasting for road protection against snowdrifts. Sato, S., et al. [1986, p.71-75, jpn] **44-2447**
- Forecasts of mesoscale snowfall for southern Ontario. Burrows, W.R., [1990, p.2127-2141, eng] **44-2648**
- Forecasting of successive snowstorms by radio waves. Asari, E., [1988, p.125-130, jpn] **44-2671**
- Snowfall forecasting method and its accuracy. Shimomura, C., et al. [1988, p.136-141, jpn] **44-2673**
- Climatic History and the Future. Lamb, H.H., [1985, 835p., eng] **44-2766**
- Helicopter icing module for tactical weather information. Luers, J.K., [1987, 65p., eng] **44-2810**
- Snowfall forecasting method and its accuracy (Vol.2). Shimomura, C., et al. [1989, p.95-100, jpn] **44-2862**
- Avalanche weather forecasting at the Northwest Avalanche Center, Seattle, Washington, U.S.A. Ferguson, S.A., et al. [1990, p.57-66, eng] **44-3722**
- Use of satellite images for snowfall prediction. Beckman, S.K., [1990, p.259-277, eng] **44-3905**
- Winter chaos—can we buy our way out of it. Hunt, R.D., et al. [1988, p.429-434, eng] **44-3929**
- Snowfall forecasting meteorological service for motor vehicle transportation. Kuprienko, V.G., et al. [1989, p.33-37, rus] **44-4322**
- See *also*: Frost forecasting; Ice forecasting; Long range forecasting
- Weather maps**
See *also*: Meteorological charts
- Weather modification**
Cloud physics studies in SCPP, 1977-87. Marwitz, J.D., [1987, 113p., eng] **44-1097**
- Artificial increase of precipitation from cumulonimbus clouds. Kornienko, E.E., et al. [1989, p.71-101, rus] **44-4233**
- See *also*: Artificial precipitation; Climate control; Cloud dissipation; Cloud seeding; Fog dispersal; Hail prevention
- Weather observations**
Unmanned weather observations in Queen Maud Land. Kikuchi, T., et al. [1988, p.39-46, jpn] **44-102**
- Weather observations at GvN Station, 1985-1987. Helmes, L., [1989, 90p., eng] **44-1070**
- Snow survey of Great Britain 1988/89. [1989, 21p., eng] **44-1224**
- Guidelines for weather, snowpack and avalanche observations. [1989, 49p., eng] **44-2082**
- Frost bitten. Owings, T., [1987, p.110, eng] **44-2118**
- Climatic History and the Future. Lamb, H.H., [1985, 835p., eng] **44-2766**
- Automatic weather and snow observation on Antarctica. Endoh, T., et al. [1989, p.547-550, jpn] **44-2913**

- Numerical modeling of passive microwave O2 observations over precipitation. Gasiewski, A.J., et al. [1990, p.217-235, eng] **44-4128**
- Weather stations**
Unmanned weather observations in Queen Maud Land. Kikuchi, T., et al. [1988, p.39-46, jpn] **44-102**
- Automatic weather station at Asuka Camp, Antarctica. Kawaguchi, S., et al. [1986, p.82-85, jpn] **44-2449**
- Automatic weather and snow observation on Antarctica. Endoh, T., et al. [1989, p.547-550, jpn] **44-2913**
- Weathering**
Weathering forms on the island of Hallö, Bohuslan. Lidmar-Bergström, K., [1988, p.111-118, swe] **44-92**
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- Interconnection of wetting and drying with freeze-thaw: some new data. Hall, K., [1988, p.1-11, eng] **44-1222**
- Lichen weathering as mass balance change indicator for an Alpine glacier. Mahaney, W.C., [1987, p.411-418, eng] **44-1453**
- Pedogenesis of paleosols on moraines. Nyalam, Xizang. Shen, Y.P., et al. [1989, p.269-278, chi] **44-2422**
- Long-term observations of polystyrene placed in the road structure. Orama, R., [1985, p.34-38, fin] **44-2514**
- Surface treatments for concrete. Husbands, T.B., et al. [1989, p.282-291, eng] **44-2515**
- Weathering trends in fine debris beneath a snow patch. Niwot Ridge, Front Range, Colorado. Thorn, C.E., et al. [1989, p.307-321, eng] **44-2636**
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- Enhanced boulder weathering under late-lying snowpatches. Ballantyne, C.K., et al. [1989, p.745-750, eng] **44-3397**
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- Soil development at Beardmore Glacier. Bockheim, J.G., et al. [1990, p.144-157, eng] **44-4290**
- See *also*: Frost weathering; Permafrost weathering
- Weatherproofing**
Corrosion resistance of metal sprayed coatings in frigid zone (Pt 4). Kitamura, Y., et al. [1988, p.69-77, jpn] **44-1295**
- Weatherability of laminar roofing materials in Hokkaido. Inoue, S., et al. [1986, p.223-228, jpn] **44-2464**
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Periglacial sand wedges and wind-polished stone pavements in south Sweden. Johnson, G., [1988, p.99-110, eng] **44-91**
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- See *also*: Ice wedges
- Welding**
Increasing the strength of welded structures for the North. Stepien, O.I., et al. [1989, 220p., rus] **44-1008**
- Weld-zone corrosion of steel plates for icebreakers. Brigham, R.J., et al. [1988, p.311-321, eng] **44-1024**
- Research on machines and structures suitable for cold regions. Larionov, V.P., [1986, p.139-150, eng] **44-1730**
- New welding procedure for icebreaker hulls. Toyosada, M., et al. [1986, p.199-210, eng] **44-2063**
- Resistance of welded joints to crack propagation at low temperatures. Bondarovich, L.A., et al. [1990, p.38-43, rus] **44-4346**
- Low-temperature durability of welded steel joints. Kurkin, S.A., et al. [1990, p.125-126, rus] **44-4364**
- Resistance of welded joints to viscous and brittle failure. Leushin, I.G., et al. [1990, p.135-140, rus] **44-4367**
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- Prevention of crack formation in T-joints during welding in winter. Savvinov, I.T., [1990, p.202-206, rus] **44-4381**
- Strength of materials and welded parts of structures in cold weather. Khanukhov, Kh.M., et al. [1990, p.237-243, rus] **44-4390**
- Cyclic durability of Nb-Cu in the temperature range of 293-4.2 K. Iakovenko, L.F., [1990, p.261-264, rus] **44-4395**
- Well casings**
Effect of permafrost on the load level on casing walls. Antipov, V.I., et al. [1989, p.89-94, rus] **44-1120**
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- Influence of well casings on well water. Hewitt, A.D., et al. [1989, 9p., eng] **44-3761**
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- Wells**
- Engineering geology studies on the National Petroleum Reserve in Alaska. Kachadoorian, R., et al. [1988, p.899-922, eng] **44-393**
- Effect of permafrost on the load level on casing walls. Antipov, V.I., et al. [1989, p.89-94, rus] **44-1120**
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- See *also*: Gas wells; Oil wells
- Wet snow**
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- Effects of solar radiation on the formation of wet snow. Izumi, K., [1989, p.120-123, eng] **44-559**
- See *also*: Slush
- Wharves**
- See *also*: Docks; Ice wharves; Piers
- Wheels**
- See *also*: Vehicle wheels
- Wind direction**
- Influence of the mountain barrier effect on iceberg motion. Lu, M.C., et al. [1989, p.701-710, eng] **44-481**
- Snow-collection mechanisms and the capacities of snow fences. Takeuchi, M., [1989, p.248-251, eng] **44-583**
- Weather station drift in the Beaufort Sea coastal ice zone. Lipoma, P., [1988, p.301-310, eng] **44-1148**
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- Arctic wind abrasion on boulders. Svensson, H., [1988, p.119-131, swc] **44-93**
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- Causes of interannual variability in the sea ice cover of the eastern Bering Sea. Niebauer, H.J., et al. [1989, p.45-59, eng] **44-296**
- Fram Strait ice flux calculations and associated arctic ice conditions. Englebreton, R.E., et al. [1989, p.61-67, eng] **44-297**
- East antarctic sea ice zone: ice characteristics and drift. Allison, I., [1989, p.103-115, eng] **44-301**
- Seasonal variations of sea ice motion in the Transpolar Drift Stream. Serreze, M.C., et al. [1989, p.811-814, eng] **44-363**
- Estimating ocean wave spectra by SAR. Tilley, D.G., [1989, p.483-491, eng] **44-402**
- Effect of ice pressure on marginal ice zone dynamics. Flato, G.M., et al. [1989, p.514-521, eng] **44-405**
- Planetary boundary layer over the polynya downwind of a Bering Sea island. Walter, B.A., [1989, p.255-282, eng] **44-411**
- Surface layer temperature records above sea ice and open water. Hoebert, H., [1989, p.293-297, eng] **44-412**
- Snow-creep pressure on masts. Larsen, J.O., et al. [1989, p.154-158, eng] **44-565**
- Effects of time-dependent winds and ocean eddies on ice motion in a marginal ice zone. Barler, J.L., [1987, 53p., eng] **44-1080**
- Chukchi Sea ice motion 1981-82. Pritchard, R.S., et al. [1988, p.255-270, eng] **44-1144**
- Air sea interactions in coastal zone, deep sea formation and katabatic wind. Gallée, H., et al. [1989, 40p., eng] **44-1352**
- Synoptic ice motion from satellite-derived imagery. Collins, M.J., [1989, p.79-85, eng] **44-1529**
- Designing buildings to withstand winds at Showa Station. Mitsuhashi, H., [1984, p.39-40, eng] **44-1676**
- Temperature drops produced by snow cloud microbursts. Shirooka, R., et al. [1989, p.367-380, eng] **44-1749**
- Predicting severe agricultural freezes. Brotak, E.A., [1988, p.15-19, eng] **44-2087**
- Particle impact of frozen surfaces with subsequent particle wind-entrainment. Neuman, C.M., [1989, p.1007-1015, eng] **44-2093**
- Atmospheric influence on glaciers in Greenland during the Little Ice Age. Humlum, O., [1987, p.1-12, eng] **44-2582**
- Beaufort Sea causeways and coastal ocean dynamics. Niedoroda, A.W., et al. [1990, p.509-516, eng] **44-2764**
- Future airborne systems in northern latitudes. Bailey, D.B., [1989, p.26-52, eng] **44-3136**
- Comment on "Seasonal variations in sea ice motion and effects on sea ice concentration in the Canada Basin" by M.C. Serreze et al. Lewis, J.K., [1990, p.5405-5408, eng] **44-3281**
- Structure of a land breeze and snowfall enhancement at the leading edge. Tsuboki, K., et al. [1989, p.757-770, eng] **44-3307**
- Transport rates of chemical constituents by drifting snow at Mizuho Station. Osada, K., et al. [1990, p.43-50, eng] **44-3546**
- Wind-generated polynyas off the coasts of the Bering Sea islands. Kozo, T.L., et al. [1990, p.126-132, eng] **44-3835**
- Mountain barrier effects on ice island drift in a coastal ice zone. Lu, M., et al. [1990, p.163-168, eng] **44-3842**
- Analysis of sea ice drift in a coastal zone. Smith, P.A., [1990, p.168-172, eng] **44-3843**
- SMMR observations of the sea ice regime in the Ross Sea, 1979-1985. Jacobs, S., et al. [1990, p.179-181, eng] **44-3846**
- Polynya observation using satellite-derived images and charts. Dey, B., et al. [1989, p.141-149, eng] **44-3896**
- Use of satellite images for snowfall prediction. Beckman, S.K., [1990, p.259-277, eng] **44-3905**
- Chemical studies of snow in Japan. Suzuki, K., [1989, p.14-26, eng] **44-3995**
- Vertical wind shear and artificial crystallization of clouds. Bakhanov, V.P., et al. [1989, p.3-11, rus] **44-4224**
- Data on wind in clouds suitable for seeding to increase precipitation in winter. Vaisblat, I.B., et al. [1989, p.19-25, rus] **44-4226**
- Wind (meteorology)**
- Antarctic drainage flow and implications for southern hemispheric flow. James, I.N., [1989, p.279-290, eng] **44-65**
- Ice breeze mechanism for boundary-layer jets. Langland, R.H., et al. [1989, p.177-195, eng] **44-164**
- Aerial observations of katabatic winds near Terra Nova Bay. Parish, T.R., et al. [1989, p.1570-1585, eng] **44-305**
- Measuring the length of an ice floe trajectory. Hoebert, H., [1989, p.347-349, eng] **44-764**
- Weather observations at GVN Station, 1985-1987. Helmes, L., [1989, 90p., eng] **44-1070**
- Labrador wind and wave environments. Lee, W.T., [1987, 78p., eng] **44-1231**
- Arctic drifting buoy data 1979-1985. St. Martin, J.W., [1987, 126p., eng] **44-1232**
- Simple ice-ocean model for the Greenland Sea. Wood, R.G., et al. [1989, p.1865-1880, eng] **44-1735**
- Preliminary estimate of inertia effects in a bulk model of katabatic wind. Kikuchi, T., et al. [1989, p.61-69, eng] **44-1802**
- Review of the climate of Mawson - a representative strong wind site in East Antarctica. Streten, N.A., [1990, p.79-89, eng] **44-2358**
- Sastrugi surveys and katabatic winds at Terra Nova Bay. Bromwich, D.H., et al. [1990, p.5495-5509, eng] **44-3500**
- See *also*: Avalanche wind
- Wind power generation**
- Wind-generators in hybrid systems powering remote telecommunication sites in the far north. Bredesen, B.R., et al. [1987, p.437-442, eng] **44-1456**
- Wind pressure**
- Grain silos under snow loads. Khazra, A., [1990, 598p., eng] **44-1484**
- Wind tunnels**
- Flow in the diffuser section of the NASA Lewis icing research tunnel. Addy, H.E., et al. [1989, 13p., eng] **44-792**
- Forward scattering spectrometer probe in NASA's icing tunnel. Hovenac, E.A., et al. [1988, 11p., eng] **44-953**
- Test for aerodynamic streamlining and snow load distribution pattern. Korotich, A.V., et al. [1989, p.47-51, rus] **44-1055**
- Local convective heat transfer coefficients. Newton, J.E., et al. [1988, 17p., eng] **44-1100**
- Sea spray icing on marine structures. Vefsnmo, S., et al. [1988, p.571-579, eng] **44-1174**
- Ice accretion of wires on board of a ship. Zakrzewski, W.P., et al. [1988, p.605-615, eng] **44-1177**
- Effects of aircraft deicing/antifluids on airfoil characteristics. Hill, E.G., [1987, 18p., eng] **44-1317**
- CRREL's snowdrift wind tunnel. Anno, Y., [1987, p.405-410, jpn] **44-2553**
- Evaluation of state-of-the-art drilling platform ice accretion models. Brown, R.D., et al. [1988, p.131-136, eng] **44-3319**
- Comparison of two droplet sizing systems in an icing wind tunnel. Oldenburg, J.R., et al. [1990, 17p., eng] **44-3333**
- NASA's program on icing research and technology. Reinmann, J.J., et al. [1989, p.22 1-22 31, eng] **44-3380**
- Wind velocity**
- Turbulent flux of sensible heat near antarctic polynyas. Engelbart, D., [1989, p.111-121, ger] **44-220**
- Influence of strong winds on snow distribution and avalanche activity. Meister, R., [1989, p.195-201, eng] **44-573**
- Numerical simulation of snowdrift development. Uematsu, T., et al. [1989, p.265-268, eng] **44-587**
- Doppler radar measurements of a kinematic wind field. Tsuboki, K., et al. [1988, p.73-88, jpn] **44-733**
- Mesoscale meteorology of the Norton Sound region. Kozo, T.L., [1988, p.163-181, eng] **44-1137**
- Wind speed, ocean currents and sea ice drift, Beaufort Sea. Kozo, T.L., [1988, p.183-200, eng] **44-1138**
- Small high-latitude ocean storms. Twitchell, P.F., et al. [1988, p.207-214, eng] **44-1140**
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- Weather station drift in the Beaufort Sea coastal ice zone. Lipoma, P., [1988, p.301-310, eng] **44-1148**
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- Beaufort Sea mesoscale circulation study - final report. Aagaard, K., et al. [1989, 114p., eng] **44-1834**
- Effects of blowing snow on katabatic wind density current. Gosink, J.P., [1989, p.367-394, eng] **44-2433**
- Formation of ice-hoar frost phenomena. Pospelova, V.F., et al. [1984, p.94-104, rus] **44-2799**
- Polar lows. Fett, R.W., [1989, p.267-272, eng] **44-3153**
- Offshore and onshore wind velocities over ice in Hudson Bay. Larouche, P., [1990, p.55-59, eng] **44-3513**
- Some measurements of turbulence over an antarctic ice shelf. King, J.C., [1990, p.379-400, eng] **44-3569**
- Wind speed and snow evaporation in a stand of juvenile lodgepole pine in Alberta. Bernier, P.Y., [1990, p.309-314, eng] **44-3602**
- Remote sensing of ocean surface winds with the special sensor microwave imager (SSM/I). Goodberlet, M.A., et al. [1990, p.209-213, eng] **44-3852**
- Windbreaks**
- Snow management increases alfalfa yields. Waddington, J., et al. [1989, p.134-137, eng] **44-515**
- Effect of snow break forest to improve visibility in blowing snow. Ishimoto, K., et al. [1985, p.527-532, jpn] **44-2342**
- Snowbreaking capacity of road cuts. Ishimoto, K., et al. [1985, p.533-538, jpn] **44-2343**
- New prevention technique of snow drifting. Matsuda, M., et al. [1985, p.547-552, jpn] **44-2344**
- Windows**
- Versatile procedure for calculating heat transfer through windows. Arasteh, D.K., et al. [1989, p.755-765, eng] **44-3033**
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- Climatology of statewide extreme temperatures during winter months in the coterminous United States. Parker, A.J., [1989, p.349-367, eng] **44-2638**
- Seasonal distribution of low flow events in New Hampshire streams with emphasis on the winter period. Melloh, R.A., [1990, p.47-53, eng] **44-3029**
- Longest sub-freezing period in Newfoundland winters. Schmidlin, T.W., [1988, p.35-42, eng] **44-4273**
- Winter concreting**
- Check your admixtures after winter storage. Suprenant, B.A., [1989, p.320-322, eng] **44-85**
- Winter highway construction: final report. Bennett, F.L., [1987, 33p., eng] **44-204**
- Winter concreting with low-cement concretes. Kuz'min, K.K., et al. [1989, p.37-40, rus] **44-385**
- RILEM recommendations for concreting in cold weather. Kukko, H., et al. [1988, 183p., eng] **44-1052**
- Proceedings. Kukko, H., ed. [1985, 361p. + append., eng] **44-1971**
- International experience with concreting in winter time. Krylov, B.A., [1985, p.13-28, eng] **44-1972**
- Recommendations on cold weather concreting in the UK. Pink, A., [1985, p.29-39, eng] **44-1973**
- Antifreeze admixtures and hardening of concrete. Ivanova, O.S., et al. [1985, p.42-51, eng] **44-1974**
- Curing of concrete in shelters. Turenne, R.G., [1985, p.53-63, eng] **44-1975**
- Cold weather concreting in Japan. Koh, Y., [1985, p.97-121, eng] **44-1978**
- Cold-weather concreting in the USA. Scanlon, J.M., et al. [1985, p.123-137, eng] **44-1979**
- Influence of slag cements on the frost resistance of green concrete. Fagerlund, G., [1985, p.182-207, eng] **44-1983**
- Control of cold weather concreting by water cement ratio. Koh, Y., [1985, p.255-262, eng] **44-1989**
- Development of quality assurance for winter concreting. Sarja, A., et al. [1985, p.288-307, eng] **44-1992**
- Effects of cold embedments on the temperature of fresh concrete. Suprenant, B.A., et al. [1985, p.308-318, eng] **44-1993**
- Energy saving methods of concrete heating as applied to winter construction. Li, A.L., et al. [1985, p.331-338, eng] **44-1995**
- Monitoring concrete curing temperatures. Knott, A.W., et al. [1985, p.339-346, eng] **44-1996**
- Winter concreting for cast-in-place concrete. Abramov, V.S., et al. [1985, p.347-353, eng] **44-1997**
- Analysis of the possibility of winter concreting of a cooling tower. Kazimierz, B., [1985, p.354-361, eng] **44-1998**

Winter concreting (cont.)

- Technology of industrial construction using cast-in-situ concrete. Ataev, S.S., [1989, 335p., rus] **44-2075**
 Technical method of cold weather concreting. Koh, Y., et al., [1985, p.202-207, jpn] **44-2316**
 Antifreeze admixtures for cold weather concreting. Preliminary test results. Korhonen, C.J., et al., [1990, 8p., eng] **44-3915**
 Concretes for pile foundations in permafrost regions. Ivanov, F.M., et al., [1989, p.11-12, rus] **44-4539**

Winter construction

See *also*: Cold weather construction

Winter maintenance

- Repair of bridge deck structures in cold weather. Final report. Kudlapur, P., et al., [1987, 219p., eng] **44-676**
 Prospects for winter maintenance machines and equipment. Tammo, T., [1988, p.20-24, fin] **44-751**
 Facing Jack Frost. [1988, p.78-80, eng] **44-756**
 How fleets prepare. [1988, p.85-89, eng] **44-757**
 SHRP takes aim at snow, ice control. [1988, p.48-49, eng] **44-1089**
 Snag-free snow blowing. Fischer, J., [1989, p.25-27, eng] **44-1094**
 Design and use of floating docks in lake ice conditions. Wortley, C.A., [1988, p.617-626, eng] **44-1178**
 Operation of diesel engines in cold climates. Bugelski, W.G., [1975, p.1273-1289, eng] **44-1187**
 Curtailing usage of de-icing agents in winter maintenance. [1989, 125p., eng] **44-2111**
 Winter chaos—can we buy our way out of it. Hunt, R.D., et al., [1988, p.429-434, eng] **44-3929**
 Decision-making aids for winter maintenance. [1990, p.17-23, fre] **44-4325**

See *also*: Snow removal

Winter operation

See *also*: Cold weather operation

Winter performance

See *also*: Cold weather performance

Winter road service

See *also*: Road maintenance; Snow removal; Winter maintenance

Wood ice friction

- Ski friction and thermal response. Warren, G.C., et al., [1989, p.223-225, eng] **44-3924**

X ray analysis

- X-ray analysis and ice nucleating behavior of the AgI-CuI-KI system. Sivanesan, S., et al., [1989, p.4160-4163, eng] **44-1379**
 X-ray topography of dislocation in ice crystals. Shearwood, C., et al., [1989, p.281-283, eng] **44-1557**
 X-ray photography of the frozen fringe of freezing soil. Akagawa, S., [1990, 69p., eng] **44-3756**
 X-ray analysis of electron density distribution in ice Ih. Goto, A., et al., [1990, p.1412-1417, eng] **44-4270**
 Density measurements of ice cores by X ray computed tomography. Kawamura, T., [1990, p.12,407-12,412, eng] **44-4424**
 Dislocation mobility for non-basal glide in ice measured by *in situ* X-ray topography. Hondoh, T., et al., [1990, p.89-102, eng] **44-4495**

X ray diffraction

- X-ray diffraction in glaciology. Hondoh, T., [1989, p.184-194, jpn] **44-1043**

Young ice

- Digital processing of radar images acquired by the Kosmos-1500 satellite. Asmus, V.V., et al., [1989, p.529-543, eng] **44-188**
 East antarctic sea ice zone: ice characteristics and drift. Allison, I., [1989, p.103-115, eng] **44-301**
 Thermophysical properties of sea ice. Nazintsev, I.U.L., et al., [1988, 258p., rus] **44-1402**